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Preliminary Splintage of the Inferior Maxilla, for Section of that Bone, in Operations Designed to Reach the Zygomatic Fossa, and in External Pharyngectomy.

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Neurectomy in the Zygomatic Fossa.

In certain operations designed to reach the contents of the zygomatic fossa, notably in the performance of a neurectomy of the inferior maxillary division of the fifth cranial nerve and its branches for intractable neuralgia of that division, and in opening the pharynx from without for the removal of malignant neoplasms of the tonsil and its neighborhood, it frequently becomes necessary to divide the inferior maxilla at or near the angle, in order to gain additional room for following the nerve to its point of exit at the foramen ovale, in the case of the first named, and to facilitate the complete removal of all tissues involved in the original focus of disease, as well as glandular infection and infiltration, in the second.

Examples of extreme and intractable neuralgia come under the care of the surgeon occasionally, in which a neurectomy of the inferior dental nerve in the dental canal has not been followed by permanent relief, and in which it becomes necessary to follow the trunk of the inferior maxillary division directly to the point where this emerges from the cranial cavity. In order to positively identify the foramen ovale, the trunk must be followed across the zygomatic fossa. Any one who has attempted this without either preliminary osteo-plastic resection of the malar bone, as in Salzer's operation, or section of the inferior maxilla at the angle, will realize the difficulties to be encountered in carrying out, in a satisfactory manner, the purposes of the operation.

The method of avulsion, as proposed and practiced by Prof. Thiersch in the case of the infra-orbital branch of the second division of the fifth nerve,

is not applicable in the case of the inferior maxillary division of this nerve, for the reason that the connections between its gustatory branch and the chorda tympani are such as to make it impossible to tear out this trunk without inflicting injury upon, and probably destroying altogether the chorda tympani. The importance of preserving the latter from injury, likewise emphasizes the necessity for gaining as free access as possible to the parts involved in its isolation.

**Malignant
Disease in the
Pharynx.**

In the case of malignant growths in the region of the tonsil, in which the only hope of reaching the disease in its whole extent lies in approaching the parts involved from without by the operation known as external pharyngectomy, section of the inferior maxilla becomes absolutely necessary, if the operation is to be at all a complete one. The disease is not infrequently found to have extended to the root of the tongue, to the soft palate, as well as to the glosso-epiglottic attachments. Any involved lymphatic glands may be reached through the incisions employed for exposing the angle of the jaw, before opening the cavity of the mouth and pharynx for the final removal of the diseased tonsil. By dividing the hypoglossal nerve and the digastric muscle, the entrance to the larynx can be reached. By this plan of removing all necessary and accessible parts before opening into the pharynx, complete anæsthetization can be maintained, and the entrance of blood up to the final act of the operation prevented.

Section of the inferior maxilla, as heretofore accomplished, has consisted in dividing the bone either just above, or in front of the angle, i. e., either through the ramus, in which case the saw-cut runs in a *horizontal* direction, or through the body of the bone, the section being made *vertically*. These sections were first proposed by Mikulicz, to which he added, in cases of external pharyngectomy removal of a portion or the whole of the ascending process, or ramus of the jaw. The latter is usually an unnecessary mutilation and seriously interferes with the functions of the jaw, as well as leading to an unsightly appearance of the parts. If the section is made in front of the angle and in a vertical direction, the angle itself is in the way of complete access to the parts above the latter, an important consideration both in neurectomy at the foramen ovale, and in external pharyngectomy.

In order to overcome these objections, I have been in the habit of making an *oblique* section directly across the angle itself. This is done with a chain saw, the attachments of the masseter upon the external, and those of the internal pterygoid upon the internal surface of the jaw, being first detached. The soft parts are raised, together with the periostum, which is stripped from the outer and inner surface of the bone by means of the rugine or raspatory. The chain saw is passed beneath the periostum, and the cut commenced just posterior to the site of the wisdom tooth. The jaw is steadied by an assistant,

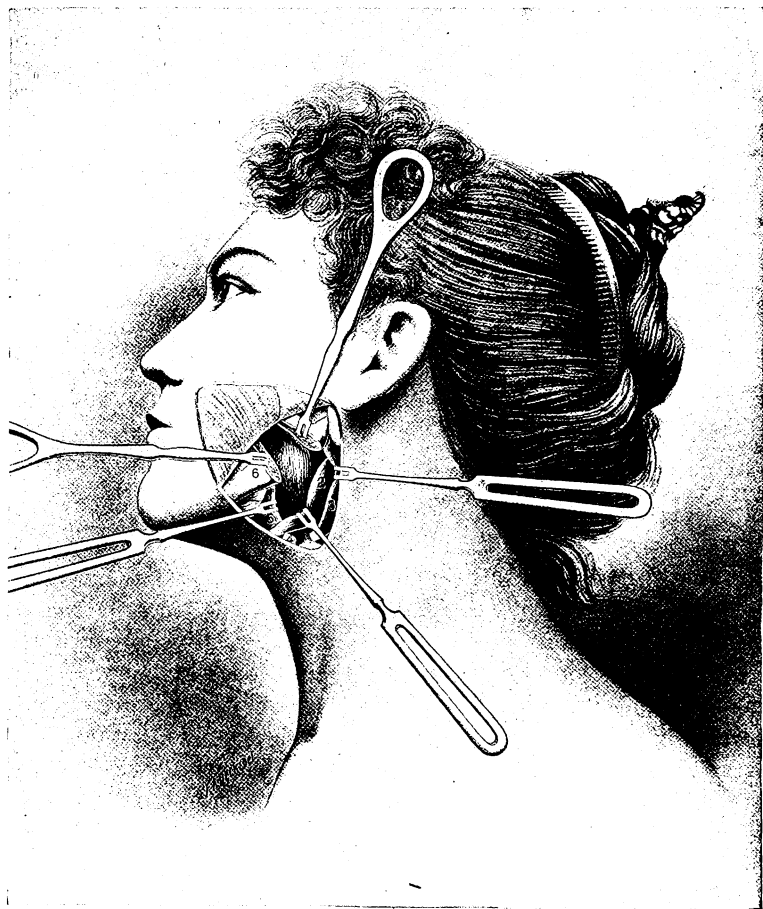


FIG. I.

1. Hyo-glossus muscle.
2. Retracted posterior belly of the Digastric.
3. Stylo-hyoid muscle divided at its lower and anterior attachment at "4."
5. Mylo-hyoid muscle, retracted anteriorly.
6. Body of inferior maxilla.

and the chain saw so directed that the cut shall terminate at the point of the angle. By this means, an oblique section is made across the angle, and a result produced, when readjustment of the divided bony parts is effected, not unlike what is known among mechanics as a "mitre." The advantages gained, in the way of access to the deeper parts, are beyond question. Fig. 1.

It was formerly my practice, following the operation, to attempt to maintain the bony parts in apposition by means of a wire suture passed through the point of the angle and twisted, the ends being brought out of the external wound. The objections to this are, first, time is lost in drilling the bone and introducing the suture; second, there is always difficulty in accurately adjusting the fragments so that the teeth articulate normally, and hence there is great risk of subsequent functional impairment and altered facial expression; third, necrosis of the jaw, the result of an infectious osteo-myelitis following failure of complete coaptation, or through the medium of the drill holes, may ensue; fourth, the difficulties of subsequent removal of the wire, and the necessity of either preventing the complete healing of the soft parts pending the removal of the wire suture, or reopening the wound to gain access to the site of the wiring.

**Operation for
Sarcoma of
the Consil.**

In the case of a most estimable young lady, who came under my care for operation for the removal of a sarcoma of the tonsil and its neighborhood, I determined to overcome, if possible, the disadvantages which, as I had learned by experience, constituted the objectionable features of the older methods of bone section, and readjustment of the fragments and the maintaining of the same in their proper relations. In furtherance of this desire, I conceived the idea of having a proper interdental splint made preliminarily, which could be applied immediately after the completion of the operation, and which should automatically adjust the divided parts and maintain them in their proper relations, thus assuring a perfect restitution of their physiological functions.

Accordingly a few days prior to the operation I called into requisition the services of Dr. R. Ottolengui, of New York, whose ready appreciation of the necessities of the case proved to be invaluable in carrying the latter to a most brilliantly successful termination, so far as the mechanical difficulties to be overcome, were concerned. The necessary casts were obtained and an interdental splint constructed.

All being in readiness, the operation of external pharyngectomy with oblique section of the jaw at the angle was performed on Sept. 25, 1894. Upon the completion of the operation, the bony parts were readjusted. It was found that the two halves of the obliquely divided ramus and body of the jaw fitted together like the united corners of a picture frame, the comparatively long cut and the broad bony surfaces aiding this materially.

Interdental Splint tion of the jaws which the interdental splint produced, displaced the body of the bone in a forward and downward direction, and separated the fragments. The splint was made of dental rubber.

Finally

Successful.

It at once became evident that a splint was needed which would admit of adjustment of the tooth surfaces to each other, with the minimum amount of intervening space. This was at once undertaken and successfully accomplished by Dr. Ottolengui, as described by him in another portion of the paper. With the application of the second splint the adjustment was found to be all that could be desired.

The patient was fed at first by a tube led through the external wound and into the pharynx. Through this tube, also, frequent irrigations of the parts with potassium permanganate as well as the application of peroxide of hydrogen solution, were carried on. Subsequently the feeding and irrigation were effected by means of a soft rubber catheter passed between the metal splint and cheek, and into the pharynx.

The splint was dispensed with in the third week and movements of the jaw permitted. The healing was uneventful, and the masticatory function of the jaw, despite the fact that the callus thrown out in the reparative process was at the site of the attachments of the internal pterygoid and masseter muscles, was complete. A point worthy of note in the case is the fact that, almost perfect restoration of phonation finally took place, despite the fact that in the operation for the removal of the diseased parts, it became necessary to remove, in addition to the tonsil and underlying parts, all of the faucial pillar and at least three-fourths of the velum. The cicatricial contraction which followed the healing process upon the diseased side, displaced toward the median line the remains of the velum. The effect of this, as well as the control over the movements which the patient obtained was finally sufficient to produce occlusion of the post-nasal space, and overcome to a great extent the nasal sound of the voice which at first was quite marked.

Dr. Ottolengui In the early part of September 1894, Dr. Fowler did me the honor of asking my advice and assistance, in connection with a most unusual and unfortunate case. The patient was a very young lady, who suffered with a sarcoma of the tonsil.

Describes his

Splints.

The plan of the operation, and the use of an interdental splint having been decided upon because of the necessity for the division of the maxilla, the patient was sent to my office, where impressions of both jaws were taken in plaster of Paris, and correctly occluded models constructed therefrom.

Interdental splints have been used in the past, so far as can be discovered in the records of either dentistry or general surgery, only in connection with

actual fractures of traumatic origin. These splints have been most commonly made of vulcanized rubber, and were either fashioned in the form of the Gunning splint, which engaged the teeth of both jaws, or, like the Kingsley splint, which covered the teeth of the lower jaw only. The latter class of splints would scarcely be of use in such a case as the one under consideration, because the division of the maxilla was to be at the angle. Thus, the splint to be of service in holding the severed parts in juxtaposition, should necessarily engage the teeth of both jaws, so that bandages could be placed around the chin and head, producing practical immovability. It was therefore decided to make a modified form of the Gunning splint.

Tin foil was burnished over all of the teeth on the model of the lower jaw, and over the molars and bicuspid of the upper jaw, the object being, by thus slightly enlarging the diameters of the teeth, to insure the easy adjustment of

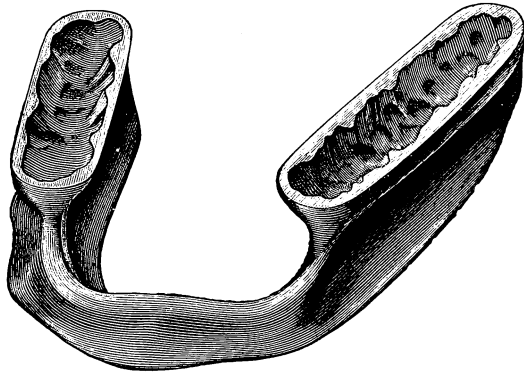


FIG. 2.

the splint, as well as smooth surfaces. Over the tin foil in like manner, was modeled thin sheet wax, that the splint might be as light as possible. The models being in proper relative position the one to the other, on an articulator, and separated a little less than half an inch, the several parts of the wax model of the splint were united by narrow strips of wax, and when satisfactorily shaped, this wax model was reproduced in vulcanite, the final form being shown in figure 2.

The patient then visited the office, and the splint was placed in position, when it was found to fit accurately and comfortably. The unique feature of the procedure is seen at this point, for here I was enabled to accurately fit the splint, before the occurrence of the fracture, or, as it was to be in this instance, the division. Under these circumstances it should have been possible to form a splint, adequately adapted to our purpose, and one which should in itself occasion no discomfort to the patient. Such, however, proved not to be the

case, which perhaps may be excused when it is remembered that I was engaged upon an untried experiment, whose outcome in some respects I could not, or at least did not, foresee; and secondly, that in forming the splint I adopted a principle which has long been supposed to be correct, but which, judging from our experience, should now be entirely abandoned

**The
Incorrect
Principle.**

In all the double interdental splints of which I can find any record, the jaws are separated and a hole is left between the vulcanite covering of the two jaws, through which the patient is fed. In the splint which I made, although it was thought unnecessary to cover the anterior superior teeth, the jaws were separated, and the principle of supplying what may be termed a feeding space, was complied with, the splint in position being shown in figure 3. This feeding space is not only not requisite, but must result injuriously in all cases of fracture or division of the ramus, as will be presently explained.

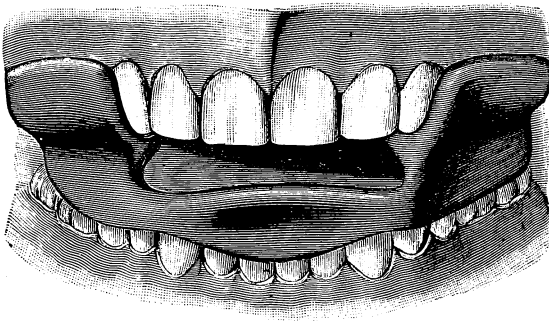


FIG. 3.

Having previously fashioned and fitted the splint, of course there was no difficulty experienced after the operation, in placing it in the mouth. The divided jaw was held firmly in position by a series of ordinary bandages which swathed the head, covering the dressings over the wound in the neck, and passing around and under the chin. The readiness with which the splint was introduced, and the perfect adaption to its purpose, was in such contradistinction to several other operations which I have witnessed, whereat some other dentists had made the splints, some of which proved absolutely useless, and none of which went to place readily, that I must admit that I left the hospital feeling rather proud of myself, though hopeful that all patients in the future, requiring interdental splints at my hands, would courteously afford me the opportunity of making the splints before having their jaws broken. But my pride was doomed to an early fall. Two days later I was called by telephone to visit the patient, as she was suffering considerably from the splint. With

some chagrin I visited the hospital, and upon examination discovered that in the region of the wound, all the soft parts had become so much swollen, that the splint, which at first did not touch the gum tissue at any point, was now in contact with it, and had already caused a most painful abrasion. Had this been the only fault in the splint it would have been trivial in importance, easily remedied by cutting away all of that part of the splint which engaged the lower molars of that side, which I did, the splint being perfectly comfortable when replaced. Nevertheless I record this fact, as worthy to be remembered by all who may choose to make an interdental splint of rubber, especially when through neglect an operation shall have become necessary in order to bring the ends of the bones together, in order to introduce the splint. After all such surgical interference it is well to remember that swellings may occur immediately in the region of the fracture, and special caution should be taken to avoid impingement of the splint in this vicinity.

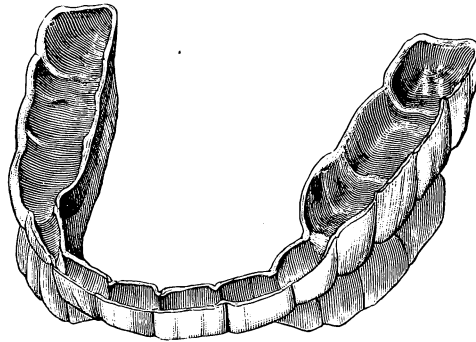


FIG. 4.

But an examination of the parts, while I had the splint out, suddenly aroused a suspicion in my mind, which if true, would prove that the splint was inherently wrong in principle. This visit being at night, I allowed the house surgeon to replace the splint and bandages, and arranged for a consultation with Dr. Fowler for the following morning, which fortunately was Sunday, so that I had the whole day at my disposal. At this examination we found to our regret, that my suspicion was well founded, and that the splint would prove harmful; consequently a splint of an entirely new design was decided upon.

The fault in the splint lay in the opening of the jaws. The main object of a splint, aside from obviating the necessity of wire suture, is to hold the jaws during the processes of union in such position that subsequently the occlusion will be correct. The double interdental splint was specially designed to this end, and has unquestionably accomplished the purpose in hundreds of cases, but these cases have been fractures of the bodies of the bones, the rami being unaffected. *I have little doubt now, that in cases where the ramus has been involved,*

perfect occlusion has not resulted, and moreover that it has remained unsuspected that the splint actually prevented such occlusion. In the case of our patient, we found that the interposition of the splint caused a V-shaped gaping of the divided parts, and it was an unavoidable deduction from the premises, that union would result from the deposition of new bone to fill this gap, so that after healing, while the jaws would accurately occlude with the interdental splint, *the splint being removed, the additional bone deposited in the ramus would preclude the possibility of perfect occlusion of the teeth, each set with the other.*

**The
Correct
Principle.**

Under these circumstances I obtained new impressions of the jaws, and hurried from the hospital in Brooklyn, to my office in New York, arriving in the laboratory at one o'clock. I started again for the hospital at five o'clock carrying the completed splint with me. I mention this as an indication of what may be done in an emergency. I made models, and then dies and counter dies. Using 20K. gold, 29G. I struck up a continuous

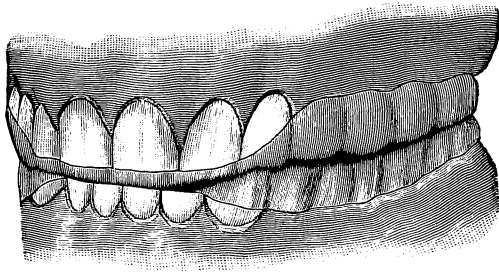


FIG. 5.

cap to cover all of the teeth in each jaw, in the incisive region however extending only over the cutting edges. The plaster models, with the gold covering the teeth were then occluded, and the two caps fastened together with hard wax. They were then invested and permanently united with solder. It may be useful to record a little trick in connection with the soldering, which saved a great deal of time. Of course the teeth of two jaws do not occlude like cogwheels, consequently these gold caps were found to be in contact at some points, while spaces appeared at others. I took a piece of platinum wire and cut it into small bits, which I bent into suitable curves, and dropped into the spaces. These bits of wire served as leaders for the solder which flowed like water, closing the seam throughout its entire extent. Figure 4 shows the form of this double interdental splint, made of gold.

I mentioned that in the incisive region the splint extended only slightly over the cutting edges. There was a useful purpose in this, which is comprehensively shown in figure 5 where the splint is seen as it appeared in the mouth. Had the labial surfaces of the anterior teeth been covered, as well as

the buccal surfaces of the posterior teeth, it would have been impossible to know positively that the jaws were properly in place within the splint; whereas by cutting away the gold from the faces of the anterior teeth, so that no gold whatever covered those surfaces, it could be determined readily, and at all times, whether the jaws were properly in position. In this respect the illustration is not perfect, as the artist has depicted the gold extending somewhat upon the labial surfaces, whereas in this region no gold whatever was visible, except that actually between the cutting edges of the teeth of the opposite jaws. This feature was shown to be of considerable value, as the tendency of the tired jaws will be to open, and these frequent efforts may stretch the bandages, thus allowing play to the mouth, which, however, is readily detected by the attendant, who may ask the patient occasionally to endeavor to open the

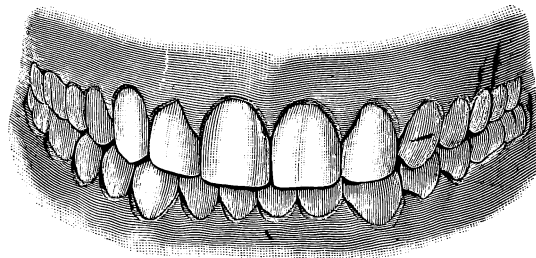


FIG. 6.

mouth, whereupon it can be observed whether the teeth move from their places in the splint, in which case the bandages can be tightened.

This splint was placed in position and caused absolutely no discomfort to the patient, and was clean and free from odor at all times. The long advocated feeding space was not missed, because at first the patient was fed through the tube which entered the mouth through the wound, and subsequently through a catheter which passed back between the cheek and jaws, entering the mouth behind the molars, the patient finding no difficulty to draw it in with the tongue, and to obtain liquids by suction, though of course the liquid could be forced in from a bag syringe, entering the mouth by gravity, the patient being in a recumbent position.

The final occlusion, after the recovery of the patient, was perfection itself, as is seen in the models shown in figure 6.

Several features of this case are worthy of special note.

**Special
Points of
Interest.**

First: Dr. Fowler divided the ramus obliquely, a line of division followed as far as we know, for the first time, in sections of this bone. Second: This is probably the first case, for which an interdental splint was made prior to the division of the bone, and the absolutely perfect results will encourage the section of maxillæ in the future, in many cases where such an operation in

the past would not have been attempted. Third: So far as we can find in the records, this is the first use of a double interdental splint, bringing the jaws into close occlusion, and abandoning the theory of the feeding space. As a division of the jaw at the ramus offers more difficulties than a fracture in the body of the bone, and as this form of splint is here shown to be adequate in such cases, there can be no necessity hereafter for opening the jaws and thus stretching and tiring the muscles, which by the method here advocated are all at rest. Fourth: It was supposed in advance, that after the removal of the tumor, which involved the loss of one half of the velum, part of one pillar of the fauces, and a portion of the base of the tongue, an artificial palate of some sort would be needed to restore perfect speech. But when she reported at the office it was found that cicatricial tissue had drawn up the remaining tonsil in such a manner that she was enabled to utilize this tonsil as a sort of natural obturator, with which perfect occlusion with the pharyngeal wall was obtained. Whilst at this visit there was considerable nasal quality to the voice, it was premised that eventually the muscles of the throat would become accustomed to the new conditions, and that the tones of the voice would rapidly improve. This hope was more than realized, for within three months there was scarcely any noticeable defect of speech.

Toxæmia during Cocaine Cataphoresis.

By DR. HENRY J. MOORE, Frankfort, Germany.

As many dentists seem to doubt the possibility of getting the toxic effects of cocaine, by the method of cataphoresis, it may be interesting to place on record a recent experience of mine. I had occasion, in the mouth of a young man, to crown an upper lateral which had been broken by an accident. As I had to destroy the pulp, I applied arsenic, and within a few hours I removed it, using cocaine with the electric current. I was compelled to apply the cocaine higher and higher up in the canals in order to complete the operation with perfect anæsthesia. At the end of twenty minutes I noticed that the pupils of my patient's eyes were much dilated. I was working by gas light, and consequently did not observe any difference in his color. I asked him whether he felt all right, and he replied that he noticed an increasing sense of discomfort and was feeling very faint. I fortunately had no difficulty in restoring him by administering several strong doses of whisky, and was enabled to complete the operation. I had not used much cocaine, and had not applied it continuously. It has always seemed to me that the quantity used is no criterion, as one subject will support much less than another.

I subsequently discovered that in this particular case the foramen was abnormally large, thus allowing the more ready passage of the current and of the cocaine.

A Study of Alveolar Pyorrhœa : Its Associated Lesions and Its Analysis,—with a Plea for Radical Treatment.

By CARL THEODOR GRAMM, M.D., Chicago.

Professor of Oral Surgery and Pathology in College of Physicians and Surgeons, Keokuk;
Lecturer on Stomatology, St. Joseph's Hospital Training School for Nurses ;
Attending Stomatologist at St. Joseph's Hospital and
United Hebrews, Charities, Dispensaries.

The etiology of alveolar pyorrhœa lies hidden in that yet unknown realm, in which scientific thought is searching for the origin of nutritive disturbances; searching for the laws of immunity and vulnerability of organic life, of alternating benignity and pathogenicity of bacteria. In this intricate forest containing the unrevealed secrets of Hea, the factors pointing the etiology of alveolar pyorrhœa lie interwoven and strongly rooted.

Such students as Charcot, Ziegler, Virchow, Recklinghausen, Rokitansky, Perl and a host of others, coryphæi amongst pathologists, when dealing with general and special etiology, have written; "Further pursuance into the subject must be postponed," "cannot now be ascertained," "is beyond the bounds of our present knowledge;" and all the lesser lights have impatiently and impotently echoed the "halt," though perhaps less frankly.

Wherefore, my intent in writing of alveolar pyorrhœa is not an endeavor to trace the chemistry of nutritive changes, but primarily to sustain the theory that in alveolar pyorrhœa we are confronted largely by systemic mal-conditions; secondly, to bring in array those calcareous deposits more or less analagous to that found in alveolar pyorrhœa; thirdly, to consider the hyaline, amyloid and calcareous degenerations of the gums and the fatty degeneration of its mucous membranes, all of which I have found to be both primary and secondary in alveolar pyorrhœa; lastly, to suggest the osteomyelitic character of alveolar destruction in thick heavy processes, and to plead for radical, surgical methods of treatment.

<p>Consideration of Nomenclature.</p>	<p>Nomenclature should either honor the name of the original describer of the lesion, or localize and correctly interpret the character of the disease process—and that in a few syllables. Thus, the term "phagedenic pericementitis," (Black) is misleading and incorrect, since phagedena means: 1. Of Hippocrates, a cancerous sore. 2. Of Galen, Bulimia. 3. A form of <i>ulceration</i>, in which the <i>soft parts are destroyed rapidly in large masses</i>. Sloughing phagedena—Gangrene, a severe deep-reaching form of phagedena (Foster).</p>
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The term is applicable to soft tissues alone, and finds no kinship in the process of disease to which it has lately been applied.

The term, "expulsive gingivitis," though less in use, is a misnomer, since in many cases of alveolar pyorrhœa the existence of inflammation of the gums is to be denied; and for the further reason that if there exists a gingivitis, it, *per se*, does not expel the tooth.

"Blennorrhœa gingivæ," i. e. "flow of mucus from the gums" (Foster) is misleading, inasmuch as the flow is not that of mucus, but of pus; therefore correctly, a pyorrhœa. And to localize the disease, Rehwinkel first and best called it "*alveolar pyorrhœa*."

**Genesis of
Alveolar
Pyorrhœa.**

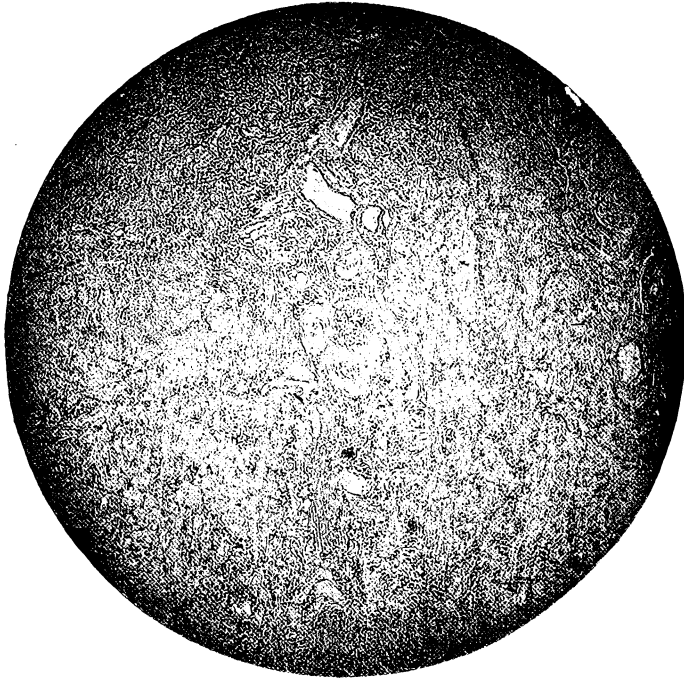
In consideration of the genesis of alveolar pyorrhœa the following four primary causes at once suggest themselves: 1. Constitutional diseases with adynamic conditions as a sequence; 2. Adynamic conditions as in neuroses and degeneracy, a veritable Pandora's box with a long line of evils emanating therefrom; 3. Impress of poisons, organic or inorganic; 4. Primary infection by pathogenetic bacteria with its consequences. These causes with their sequences, could be schematically arranged as below.

- | | |
|---|--|
| <p>I. Constitutional and infectious diseases—Adynamic conditions.</p> | <p>1. Vulnerability to hypertrophies and ulcerations.</p> |
| <p>II. Adynamic conditions:</p> | <p>2. Hyaline, amyloid, calcareous degenerations of connective tissues.</p> |
| <p>III. Impress of poisons:</p> | <p>3. Fatty degeneration of epithelial tissues.</p> |
| <p>IV. Primary infection by pathogenetic bacteria, (systemic or local).</p> | <p>4. Invasion and destruction of leucocytes by pathogenetic bacteria.</p> <p>5. Suppuration and necrosis.</p> <p>Connective tissue tissue proliferation, cell metamorphosis and cell destruction.</p> |
| | <p>1. Lowered vitality, local or general.</p> <p>2. Inflammation, necrosis.</p> |

I have thus in advance summarized the lesions underlying, constituting, or closely associated with, alveolar pyorrhœa. It may seem a sign of weakness, even greater than that which I lamented in the outset, to ascribe to a local manifestation such manifold, far-reaching sources, and many students have endeavored to sift the etiology to some simple local perversion, such as irritation by accumulations of tartar, or uncleanness of the oral cavity. Their views might be gladly accepted since prophylaxis would then be greatly

simplified, were it not that nearly all practitioners have met severe types of alveolar pyorrhœa in mouths kept scrupulously clean, and have seen teeth affected which were most remote from tartar deposits; while on the other hand the overwhelming majority of mouths presenting absolute neglect are free from true pyorrhœa.

While, as may be judged from the scheme above, I am not inclined to underrate purely local influences as potencies in this disease, I cannot but find the genesis of alveolar pyorrhœa ever revolving about and pointing to general nutritive disturbances as the incipient factor. Briefly stated, *alveolar pyorrhœa*



is most frequently a local manifestation of a systemic disturbance affecting the connective tissues. Nor have we far to search for other like manifestations.

That there is often a tendency of a general adynamic condition, to manifest itself in some remote seemingly irrational loci, is witnessed for example in gout, in which the localization is usually in the metatarso-phalangeal joint of a large toe; or in the characteristic *mal perforant du pied* of diabetes, or as in the drumstick fingers in bronchiectasis.

Let it be noted, (1), that the peridental membrane is subjected to the continuous severe service as a buffer in attrition, a physiological function not far from the bounds of a pathological irritation; (2), that its specialization in this service may frequently, as with other formations, to wit: enamel and dentine,

be arrested, incomplete, and that in consequence, this membrane readily responds to a general lowered vitality by relative irritation; 3, that the alveolar wall which supports the delicately formed, slender, bluish tooth and which, as is well known, is most subject to alveolar pyorrhœa, is but scantily supplied with nutritive vessels, and therefore the more prone to atony. In view of these premises the tendency to chronic periodontal inflammation, proliferation or degeneration, which invite calculary deposits, should appear a logical and plausible sequence.

Precisely the same processes and tendencies to calcareous deposits are observable in connective tissues throughout the body—witness the concretions of adhesive pleuritis, of the valves and ligaments of the heart in endo-carditis, of pericarditis; of arthritis; the concrements of the mybomean and lachrymal glands, of the tonsils, the tympanum, the iris and the lens, the dura mater,* etc. It must be remembered that calcification may occur in any degeneration, tumor, tubercle, glioma or sarcoma, etc. (Gower).

The closer analysis of these lesions as analogies will be left for later consideration.

**Impress
of
Poisons.**

As febrile and infectious diseases are generally accompanied by stomatitis, which ultimately involves the periodontal structures, so also do poisons, organic and inorganic, produce a toxic stomatitis, directly or indirectly, with identical sequelæ.

Among these are mercury, iodine (Finger, Mauchle), lead, arsenic, (Chiari, Passler), and bromine (DeMontyel), the inhalation of an atmosphere laden with sulphurous acid, chlorine and phosphorous.

According to DeRenzi, mercury does not directly produce stomatitis, but modifies the nutrition of the mucous membrane, thus leaving it vulnerable to inflammatory processes by infection. Of arsenic it must be noted that its use causes general atrophic conditions and fatty degenerations.

Among organic poisons or their alkaloids, which when habitually used, lead to vaso motor and trophic disturbances becoming manifest in the periodontal structures, are morphine (Erlenmeyer, *Behandlung des chronischen Morphinismus*), Ergotine, etc.

Albrecht has observed affection of root membrane in the employment of digitalis and opium, castor and croton oil and cantharides (Wedl).

**The Theory
of
Infection.**

The oral cavity is a metropolitan hotbed of Bacteria. The teeth, mucous membranes, the salivary glands, harbor microbes, innocent and malignant alike.

It would seem plausible therefore that infection in pyorrhœa should be by the most direct route, to-wit: from the borders of the gingivæ. Granted that this be often true, as in a pyorrhœa de-

* The accompanying photomicrograph is a fibro-psammoma of the dura mater showing calcareous infiltration of connective tissues. Slide by Sidney Kuh; photomicrograph by the author.

scribed by many authors, in which the gingival border "presents a red line," with pus exuding from sometimes deep pockets located particularly in the interdental spaces, and a concrement, deposited along the root to the bottom of the pocket, varying from a cream colored chalky, to a greenish hard character. But is there not also an infection in an alveolar abscess which though chronic, yields readily to a simple procedure?

If on removal of all calculary deposit from the root, relieving the congestion of the gums, in short, if after restoring the parts (apparently) to a normal condition, pus still continues to flow, absorption of tissues and formation of lime deposits still go on, would not the student necessarily conclude that there existed an adynamic condition of the region, and that this condition depended only on former or present nutritive changes induced by some general ailment perhaps long forgotten?

But what of those most obstinate cases of true pyorrhœa presenting a healthy appearing gum, evenly, if at all, receded, with necrosis of cementum and concretions on the root near the apex only, which would pass without suspicion of alveolar pyorrhœa, unless pressure be applied to the gingivæ?

At this point there presents itself for consideration an infection such as that carried by the lymph currents, for example in osteomyelitis, to which alveolar pyorrhœa bears a striking resemblance in many of its features.

Buschke (Deuts. Z. S. für Chir. /94) writing of the tonsils as gateways for pus producing micro organisms, cites the following cases:

**Instructive
Cases of
Infection.**

A 26 days old, partially consolidated subcutaneous Humerus fracture succumbed to a suppurative process owing to the sudden appearance of an angina.

Again the same phenomenon appeared in a four days old, operative wound in an ulcer cruris.

In both cases the crypts, blood and pus furnished the same streptococci in pure cultures. Here the tonsils must have furnished the portals for hematogenous infections of the locus minoris resistentiæ, and herewith a hitherto open question is answered affirmatively.

Galippe (Le Progress Medicafe, Infection of Salivary Glands, 94 F. 103) avers that he has found pathogenetic bacteria in healthy connective tissue.

(To be continued.)



The Future of the Educational Associations of Dentistry.

BY THOS. WEEKS, D.D.S.,

Dean of the College of Dentistry, University of Minnesota.

A little more than a decade ago, eleven of the colleges in existence at that time, banded themselves together in an association whose object was to promote the interests of dental education. How well this Association, now numbering thirty-nine colleges, has fulfilled its objects, may be learned by comparing the status of education then and now. On page 4, History of N. A. D. F. 1893, the Secretary says that in 1884 a majority of the colleges, admitted to the senior year those who had been in practice five or more years. Furthermore, that such students were admitted as late as the middle of the term, thus permitting many to graduate after three months attendance. This condition, together with the non-existence, practically of an entrance examination, is one point in our comparison; the other is that to-day the shortest term in any college is six months, and three years the universal requirement. Unless violating a rule of the association, no college admits on a lesser requirement than a grammar school education, while many of the colleges demand in lieu of a high school diploma, an examination which could not be passed on less than one or two years in a high school.

The Association at Saratoga agreed to demand, in addition to the fourteen counts of the "preliminary" or grammar school studies, eighteen counts from the "elective" or high school studies. This means some knowledge of at least six of the "elective" studies. It would be tedious to follow in detail the abolishment of the practice of conferring honorary degrees, the grading of the courses of study, and other improvements which have marked the phenomenal advance during the last decade. But the gradual change from the didactic to the laboratory method of teaching, is deserving of more than passing notice, as will appear in following the rise of technic teaching.

Immediately after the appearance in the *Dental Review*, Vol. II, page 365 of "Outlines of a course of Study in Operative Dental Technics" by Prof. G. V. Black, several colleges provided for systematic courses of Technic in both operative and prosthetic dentistry. Interest in this branch of instruction continued to increase until in 1893 at the Columbian Dental Congress, an association of Technic teachers was formed, in order that by an interchange of ideas something like uniformity in teaching might be secured. At the first meeting in 1894 much interest was manifested; at the second, despite the fact that the "side-shows" well nigh prevented its having a session, so much interest existed among educators, that the N. A. D. F. invited the

The Introduction of Technics.

Technic Association to hold its meetings for the next year in connection with their own. This invitation was accepted, and in August 1896 the two associations divided the time. The Technic Association now embraces twenty-five colleges, which growth, supplemented by the fact that in 1895 the National Association of Examining Boards passed a resolution, that in order to be recognized by them, schools must be equipped for technic teaching, compels the conclusion that technic teaching is now a recognized factor in dental education.

One of the chief features at the meetings of the School of Technics is the exhibit of work by students from the several colleges, for the purpose of showing the character of the courses rather than the excellence of the work. The Executive Board has endeavored to provide papers each year, which should not only be mile-stones to mark advance, but guide boards to point out the paths of future progress. This year the leading paper, "Dental Pedagogics" by Dr. E. C. Kirk, (published in *Dental Practitioner*, Oct. 1896.) was a masterly presentation of the "general principles involved in technical instruction in dental schools," and offered much food for thought in such paragraphs as—

"The principle involved in the technic system of instruction is broader and means more than mere cultivation of the brain and hand. It includes the use of all the perceptive faculties as means of brain cultivation. By the application of this principle, not only may manual dexterity be achieved, but all the powers of observation be trained to their highest capacity, and the reasoning faculty correspondingly developed. Were the standards of preliminary educational requirements generally demanded by the colleges, such as would admit as dental students, only those trained in habits of study, and those accustomed to logical abstract reasoning, the educational method required for their technical training would be much simplified. With the present requirements, the colleges are flooded with men utterly untrained in the scientific method of thought and study, and, as a consequence, their successful education involves not only a training in the elements of professional knowledge, but a training in the methods of acquiring it."

This paper has furnished much of the inspiration for this article. It suggested the question of the future of the School of Technics, and in endeavoring to answer the query, I have concluded that if the Association is to attain full fruition, it must become in fact, if not in name, a "National School of Dental Pedagogy." When the usefulness of the Association became apparent, a

**National
School of
Pedagogy.**

strong desire arose in the minds of many who are interested in both bodies, to merge it with the N. A. D. F. This certainly is not wise for the present. While the two bodies can accomplish more by meeting and working together, each has a distinctive work to perform. Their union in the future may be wise, and I think natural, but for the present the objects and ideals of the one or the other would suffer by union. The reason for this is, that methods of teaching, and the legislation necessary for the har-

monious conduct of the schools, cannot be discussed at the same time. While the same men in many instances are equally interested in both, and none we hope not interested in methods of teaching, there are many instructors not at all interested in legislation; some I know whose active interest can be insured, only by preserving the identity of the separate associations.

If we would merit and command the respect of those who are inclined to ridicule the Technic Association and what it represents, we must continue to build upon the foundation already laid. If we do this, it will in time become apparent that Technics are so interwoven with all branches of teaching, that to consider dental Technics, one must consider "Dental Pedagogics."

**The Association
of Dental
Faculties.**

Having disposed of the younger of the educational Associations, I may discuss the present status and future possibilities of the older, or parent body. That this association is largely responsible for the great improvement in the general status of dental education, is an acknowledged fact. That its meetings are characterized by unusual harmony has been a matter of comment. But it is a body, whose legislative authority is derived solely from itself, and its members are bound by no higher law than that of their own agreement. All legislation has been with an eye to the general improvement of the whole body, and its laws are simple, direct and easily understood. While little points of friction between schools, have sometimes appeared, the oil of common sense and charity has always been applied promptly and has stopped the "squeak."

Colleges are like individuals, now and then one appears timid, afraid to venture on a new departure, fearing a decrease in revenue through a falling off in patronage. But the body has become so strong that all its members now realize that any advance which meets the approval of the majority must succeed. Furthermore, it has been demonstrated that raising the requirements has resulted in increasing the number of students. These considerations embolden me to believe that with the continuance of the harmonious union which now prevails, we may demand all things reasonable, and move onwards and upwards until the dental graduate shall be as thoroughly equipped for his work as is any other professional man. Then recognition will come gladly from all quarters as a tribute to scientific attainment, and not grudgingly, by demand.

In my opinion no step of so much import has been taken, as the adoption of the resolution regulating the admission of students. History is repeating itself. Those who are unfamiliar with the struggles of the Association in securing the adoption of a three years' course may find interesting reading on pages 9-10-11 of the History of the Association, 1893. There we read of the many defeats and the final adoption of the measure, by a vote of 14 to 5, afterward made unanimous. In referring to the struggle, the Secretary says, "The foregoing resolution was exhaustively discussed upon all points... these contests have in no wise

affected the stability of the Association, nor stopped its progress." This history is full of prophecy. For several years past an effort has been made at each meeting of the Association to advance the standard of preliminary requirements. Up to the present year all that could be agreed upon was that no students should be accepted with less than a grammar school education.

**Requirements
for Admission of
Students.**

This would not be so bad, if the rule were adhered to. I recognize in this statement, my liability to the criticism which has been made, that vague charges have been brought against the colleges, charges which cannot be substantiated, but I *have seen* entrance examinations, which any good seventh grade pupil ought to pass. It is not the purpose of this paper to question the integrity or honesty of any college, but so long as the examination of applicants for admission is left with the authorities of the colleges and so long as colleges are private ventures depending upon the fees of students for their existence, so long will the temptation remain to admit students who do not quite come up to the standard. Now this will be avoided as students will be admitted only upon certificates of recognized schools.

It is but natural that differences should exist in methods of instruction, and no legislation can ever compel all colleges to come at once to the plane of the highest, but legislation can be agreed upon, fixing a minimum standard.

It has been decided by the best judicial opinions, that States have a right to fix the minimum of requirements for the practice of any profession. Students who contemplate settling in any State, will seek such schools as will fit them to comply with the laws of that State, and high requirements create a demand for schools of a high grade. The ministry and the law, both require higher preliminary education than does dentistry. The tendency of modern education is in the direction of the endowed, or State university; many of these universities are establishing professional schools. The minimum for entrance to the academic departments of such universities, is a high school diploma, and the authorities of such schools naturally feel, that their professional schools should require, at least, the same, and they bring pressure to bear towards this end. These several influences have already impelled a number of dental colleges to establish preliminary requirements, much in advance of the minimum standard demanded by the N. A. D. F. These schools are not suffering a loss of students; on the contrary, all of them are constantly forced to extend their facilities to meet the yearly increase of applicants.

Those colleges who oppose an elevation of the standard do so for prudential reasons, but in the face of the facts, it seems to me a short-sighted policy. I am again impelled to call attention to the fact that it is only necessary for all to agree upon any measure to make its enforcement easy. I am sure that many opposed the adoption of the gradual advance by the elective plan, because they did not understand it. Simplified it is plain:—

Explanation of Present Requirements.	First—"A count" is a term of ten weeks successfully passed.
	Second—The elective studies are the studies included in the ordinary high school course.
	Third—Any studies in the course may be selected for

securing the requisite number of counts.

In a high school, or academy whose school year extends through forty weeks, a student who carried and successfully passed the four studies usually taken in the first year would have sixteen counts to his credit. By taking one other study for two terms, or two of the one-term studies for one term, he would have acquired the necessary eighteen counts in one year. The present requirement is the grammar school education, or the fourteen counts of the "preliminary studies." Hence we have simply decreed that for 1897-8, applicants for admission to our colleges, must have so much additional education as can be acquired in one year of diligent study, and we have given one year's notice. Is there anything unfair in this? Of the 39 colleges in the Association, at least nine have requirements equal to this or higher. Thus it would seem that the time has arrived, when all the colleges must come to this standard, or risk losing many of those students who are seeking the best, and these are the students who give colleges their reputations. There is no question of the wisdom of the colleges in adopting the measure at this time, for the number of colleges with high entrance requirements is constantly increasing and if uniformity had not been agreed upon, we might see a line of demarcation sharply drawn between high and low grade schools.

While a uniform standard of education is possible as to the *amount* of education it is impossible as to methods of instruction. Such a condition would destroy the individuality of the schools, and it is this individuality that insures their success. However, a certain kind of uniformity is desirable, and the legislation and efforts of the Association in the past all aimed at this result; it is only fair to presume that future action will be in the same direction. Permit me to offer a suggestion for consideration. I would have each college furnish a complete syllabus showing the ground covered in each study in the curriculum of its college; then let a committee of five, chosen by the Association, prepare from this data a composite syllabus which might be adopted by the Association. Undoubtedly, difficulties would arise, and the plan would probably be more or less modified before it could be effectual; but an effort in this direction would certainly result in much improvement in methods of instruction, and more nearly uniform requirements.

Whatever the trend of the deliberations of our educational bodies, I am satisfied that the legislation for the future will result, as in the past, in a gradual elevation of our standards.



Method of Treating Pulpless Teeth.

By DR. H. C. GILCHRIST, Nyack, N. Y.

Read before the Second District Society, at Newburgh, October, 1896.

My method of treating dead teeth has been very successful during fifteen years of practice. Where there is a great amount of inflammation and swelling, the suppurative stage approaching, I first open the pulp chamber to release the confined gases. I then cut a small disk from blotting paper, about three-eighths of an inch in diameter, which I saturate with chloroform, and apply directly over the root of the diseased tooth, covering the same with a little larger disk of rubber dam to protect the lips or cheek from being blistered. Two or three of these applications will in a few moments produce a small blister and soften the gum tissue. I then paint the parts thoroughly with iodine and aconite, equal parts, and, giving some capsicum plasters to use over the affected part, I dismiss my patient until the following day. In the majority of cases when the patient returns I find that the abscess is discharging through the gum where I

**False Fistula
produced with
Chloroform.**

produced my blister with the chloroform disk, and that the inflammation has somewhat subsided. If not discharging, it is ready to be lanced. I then cleanse the canals with Donaldson broaches, wash out thoroughly with water, as hot as the patient can bear, following with bi-chloride of mercury (1-10,000). Then making a piston of a broach wrapped with cotton, I carefully force beechwood creosote through the canal until it appears upon the gum. In very obstinate cases I use chloride of zinc (ten grains to the ounce). I then place in the canals a dressing of cotton saturated with the following preparation: One-half ounce iodoform; creosote of sufficient quantity to make a thin paste, to which add half drachm of oil of cinnamon, which, while acting as a germicide, also disguises the odor of the iodoform. This combination has given me more satisfaction than any that I have ever used. It is very rare that it is necessary to make more than the second application to effect a cure.

If the tooth is in a quiescent state when I begin, I open the pulp chamber, and after thoroughly cleaning out the canals, wash with hot water and bi-chloride of mercury, then pack the canals with cotton saturated with spirits of camphor, leaving it in for twenty-four hours. When the patient returns I pursue the same treatment with my iodoform preparation as before mentioned.

When the tooth is ready for filling, I adjust the rubber dam, wash out the canals with alcohol and follow with chloroform, which I evaporate with hot air. If I have found it necessary to drill through the foramen, I fill the canals with gutta percha point dipped in chloro-percha, which I force in with a warm instrument; otherwise, I use my preparation of iodoform, mixed in a thin paste of phosphate of zinc, to which I add a few shreds of cotton, which can be readily forced up to the end of the root.

**Treatment of
Unyielding
Abscesses.**

Once in a while I meet an obstinate case where some constitutional disturbance causes a great deal of trouble, but with perseverance it can usually be conquered. Recently, when there has been a great deal of pain, I have prescribed ammonol in ten grain doses, with satisfactory results. But I must confess that I have met a few cases where all the prescribed methods have failed. In these I extract the tooth, excise the end of the root, wash out the socket with bi-chloride of mercury, and after filling the canal with gutta percha, return the tooth to its former position, tying it fast to the adjoining teeth. The first tooth that I treated in this way was a superior central incisor. That was fifteen years ago and it is still in the mouth, doing good service. Since then I have treated a number in the same way with good success, they being limited to incisors, canines and bicuspsids.

Calendula in Dentistry.

By DR. W. I. WALLACE, Montgomery, N. Y.

Read before the Second District Society, at Newburgh, October, 1896.

Calendula officinalis is the scientific name for the English marigold, whose blossoms much resemble those of the arnica plant, with which I presume every one is familiar. The tincture is prepared from these blossoms in the same manner as arnica, by covering the flowers in a jar with alcohol, and allowing them to stand several days. The flower or tincture can be purchased from any homœopathic pharmacy. The provings of this drug show it to have a powerful action in suppurative conditions.

Upon taking up dentistry, I saw in calendula a remedy valuable in all such conditions. In the presence of putrescent pulps, after washing out the canal with warm water, or one-half per cent. solution of ammonia, to remove the decomposed matter, pump in calendula with a broach wound with cotton, and then pack the canal with cotton saturated with calendula. If an old case, with an abscess at the apex of the root, with or without fistula, two or three treatments, twenty-four hours apart will be necessary. If an acute abscess, it must be evacuated first.

Destruction and absorption of the pyogenic membrane or pus sac, is rapidly caused by this medicine. In acute abscess, located in the alveolar process, after lancing, gradually inject an ordinary hypodermic syringe of the tincture, pressing around it frequently to force into all parts and to rinse out the sac, but leaving a small quantity in when through. This will generally be all the treatment required, though a second injection is sometimes necessary.

Another use is in pyorrhœa, where this remedy is certainly indicated, and has proved very satisfactory in my hands. Inject a few drops with hypodermic syringe, passing the needle close to the root, to the bottom of the sac.

If daily treatments can be given, a speedy cure should follow. The internal administration of twenty drops in half a glass of water, a teaspoonful every three hours until all is taken, will assist in the cure.

A pledget of cotton saturated with the tincture and placed in the alveolus after extraction will aid in the rapid healing and filling up of the socket, as this remedy applied to a wound will cause it to heal without supuration leaving almost no scar.

Calendula stimulates proliferation of white blood corpuscles; increases quantity of fibrin and aids its transformation into connective tissue; induces healing by first intention; promotes granulation and prevents disfiguring scars; promotes favorable cicatrization with least possible amount of suppuration; prevents or arrests gangrene, and aids in healing or reproducing bone.

Nature's Rule in Dentistry.

By DR. EDWIN G. PARKER, Goshen, N. Y.

Read before the Second District Society, at Newburgh, October, 1896.

One serious fault of the profession in general to-day is the desire to rush into the latest isms and dicker with the most recently advocated nostrums.

Too many are ignorant of the first rudiments of Nature and those con-

ditions to which she takes kindly. I am in hearty accord with those who are urging a more advanced grade of requirements, and especially a more practical course of training, before a diploma is granted. Theory is necessary, but entirely useless without sound judgment.

To be a first-class stomatologist, a man should be a ready diagnostician, quick to differentiate pains and their primal causes. He should be accurate in conclusions and effective in execution. Do not, I pray you, understand me to mean haste.

What I would especially urge is careful conservatism in all operations. We are all, more or less, too apt to aspire to scientific theories and methods; to try something out of the ordinary, and then to attempt, with profound professional dignity, to impress the public with our exceptional ability.

There are men commonly known as hobbyists, who can recognize no good in any method other than those which they employ. Such a man becomes so engrossed in his way of thinking and doing that he refuses to recognize any failures in his results; they all resolve themselves into impossibilities, for surely they must be such if he cannot conquer them.

Let us not draw a conclusion that all similar operations give like results, and when we have made use of usually effective agents without the desired effect, might we not with advantage employ such remedies as have been effective in parallel cases, and thus save our patients much pain and ourselves the chagrin of failure?

The failures that we constantly meet as the result of our own, and the efforts of others, especially others, force us to the sad conclusion that there is a deplorable lack of good judgment.

Nature absolutely refuses to be forced or driven; she takes much more kindly to being soothed and coaxed, and will usually follow submissively if gently led.

Let us bear in mind that we neither cure nor restore. That is Nature's prerogative. We simply arrest and substitute; therefore we should study to make use of those agents with which Nature kindly affiliates.

As a physician must be prepared to meet abnormal conditions governed by wholly different circumstances, so the dentist should be prepared to do likewise. Here is where so many of us make our mistakes. We, not being equipped with a general knowledge of Nature's restoratives, are, like the man who goes chasing some "Will o'the Wisp," guessing at the conditions which confront us, and we fail to allow Nature's rule, namely, common sense, to direct our course. Permit me to mention a case which demanded immediate and effective, even heroic treatment, by employing such means as common sense dictated.

About ten days ago, in the late evening, I was summoned to my office to arrest a secondary arterial hemorrhage which occurred six days after extraction.

The bleeding was so profuse that it was almost impossible for the patient to converse, and had continued nearly two hours. I resorted to the usual methods, of compress and plug with hemastatics, with no success. It was a desperate case, and I turned in despair to my cabinet, wondering what next I would try, when suddenly my eye fell on my bottle of trichlor-acetic acid. I had often used it as a styptic and coagulant, and I used it in this instance, full strength, on a pledget of cotton the size of a bean, and covered quickly with a large compress of cotton saturated with per-sulphate of iron. Not another jet of blood came. The astringent and escharotic effect was so marked that I removed the plug within twenty-four hours and washed the socket with warm water and peroxide of hydrogen.

Let me conclude by again urging that we be practical, conservative, yet progressive operators; students of Nature in every sense, making a thorough study of symptomatology, and the physiological and therapeutical actions of standard drugs and medicines. Let us broaden out our knowledge of the whole system, not simply confine ourselves to the study of the oral cavity. Socrates said, "A little learning is dangerous." One of the oracles revealed to him that his superiority to others lay not in his wisdom, but in his being fully conscious of his ignorance.

The Life and Trials of a Tooth.

By DR. F. P. HAMLET, Hempstead, L. I.

Read before the Second District Society, at Newburgh, October, 1896.

The life of a tooth is as eventful and mysterious as is the life which we live, and, although it is so closely linked with our life, and we share its trials and sufferings, we speak of "the life of a tooth" as a life wholly apart from our own. We hold the supremacy, however, for we could live without the tooth, but the tooth could not exist without us. It is a very important member of our body, and has necessitated and developed a profession to care for it.

The "life of a tooth" is first represented by the **Eruption of Deciduous Teeth.** baby incisor, which is formed in a closed sac, rises to the surface, and slowly penetrates the gum. Many dangers are associated with the cutting of the teeth, as it becomes a cause of disease, by reflected influence on the nervous system; for, while these baby teeth are erupting, the whole system of the infant

is changing. Passing from a liquid diet to one of solids, the digestive apparatus must necessarily be affected, and diseases of detition ensue.

Where there is evident irritation or inflammation of the gums, a cautious use of the lance is recommended. Children's gums at this age are sometimes black with congested blood, and lancing will give instant relief.

The child comes next with the first decay and toothache. It is only five years old, perhaps younger. The child is too young to lose the tooth, as such loss would impair the nutriment of the permanent, or in some degree alter the form of the jaw. What is to be done? First, partially remove the decay,

wash the cavity with a non-irritating antiseptic, and mix to a stiff paste thymol and glycerine, equal parts, with oxide of zinc. Cover the floor of the cavity, then flow thin cement over all. If there is too much inflammation to admit filling, apply capsicum and aconite diluted with witch hazel, until inflammation subsides, then treat by filling as above. Approximal decays in temporary teeth can best be filled by joining the two, forming a 'bridge.

The sixth-year molars are neglected as a rule and mainly because of the ignorance of the parent. Mothers usually count the sixth-year molar a "tooth to be lost."

Sixth-year molars require attention as soon as they peep through the gum.

If we watch the fissures of these teeth, and, when necessary, fill with good cement, the results are often far better than filling at once with metal.

**Caries of the
Sixth-Year
Molars.**

Extracting sixth-year molars simply to "make room" is a practice which should be discouraged, for in so doing you invariably ruin the articulation, destroy a large masticator, and the absorption of the alveolus is often so marked that it causes the neighboring teeth to lean and the gums to recede. We are seldom called upon to regulate molars, and, if a tooth must eventually be removed to accommodate anterior teeth, removing a bicuspid would be better practice.

We must now consider permanent fillings, for the patient is old enough, and we rejoice that we have advanced thus far without destroying the "life of a tooth." What is a permanent filling? In some teeth gutta-percha is much more durable than a beautifully made gold filling.

The question should be, which will be the most satisfactory filling? In buccal cavities hard gutta-percha will serve longer in the majority of cases than gold or amalgam, but we cannot insert gutta-percha without a certain degree of heat, which is very severe on a sensitive part, and a most cruel

shock to the pulp. If it can be inserted without injury, it will stand the test. Cohesive tin is very satisfactory for these cavities, and for children's teeth can be relied upon.

**Comparative
Value of
Materials.**

Our duty is to save the teeth. Artistic efforts come second, and if a cement filling will do better service than any other, it certainly is the most satisfactory. We must educate our patients to realize that few are permanent, but the most satisfactory filling is that one which saves the tooth. The choice must be governed by the condition of the tooth, the secretions, and the general health.

Never hasten to fill with gold approximal cavities between centrals and laterals. These teeth are usually soft, and could best be treated for a few months with cement, which will harden the enamel edges and dentine, and gold will look better and stay longer when used later. Be cautious about separating these teeth to fill. If there is not sufficient room, cut away the thin edges of enamel. This is no loss, one would certainly prefer seeing a nicely formed gold filling with a bright surface, than the objectionable discoloration through the thin enamel. I have seen teeth wedged for two weeks, first with rubber, then with cotton, and finally wood, with the filling yet to be inserted. Such reckless separating means severe trials for the teeth, acute suffering for the patient, and the possibility of spreading the inter-maxillary suture, altering the form of the face, often permanently dilating the nostrils.

Then, too, we often find these fillings, badly made at the palatal margins. A very good way to fill these cavities without wedging is to mould a piece of gutta percha under the teeth, extending it from one tooth to another, making a floor between the teeth. Cut out the gutta percha in good form about the cavity, and hold this firmly in position while placing the gold against it with hand pressure, until the gold is anchored and there is a mass about the lower enamel edge. Continue to fill, using the mallet, electric or automatic, and when the upper part is full take away the gutta percha, and with a suitable burnisher, rub the mass of gold at the palatal margin without condensing it; then add a piece of No. 30 rolled gold, condensing it with the mallet. This method will give good margins all about the filling.

**Matrix for
Gold Fillings
in Incisors.**

These are but a few of the trials of a tooth. A suffering tooth is brought to our notice. We defend it until the last spark of hope has faded. The poor tooth was neglected in its youth. It was in bad company, and because of evil surroundings gradually disintegrated until it would hardly be recognized as belonging to the distinguished family of masticators. And we call it a "dead tooth," but it is not, for there is something "after death," even for a tooth. Practically it has as much vitality as before, and if we have success with the embalming of the inner cavity, and do not allow infection to reach the pericementum, we can, by crowning it, restore it to usefulness and beauty.

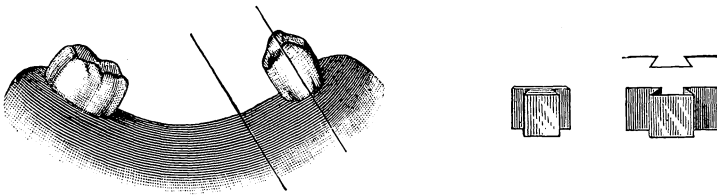
Sectional Bridge for Inclined Teeth.

By DR. J. H. HANNING, Brooklyn, N. Y.

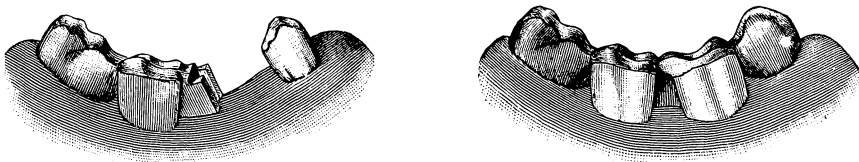
Read before the Second District Society, at Newburgh, October, 1896.

This bridge is designed for cases where the piers lean, either together or apart.

One of the conditions on which success and usefulness depend, is that crowns supporting the bridge should accurately fit the necks of natural teeth used as piers. If the sides of the natural teeth are not ground parallel, the pier crowns will be stretched in setting bridge, and will not fit at the gum margin. No amount of burnishing will secure proper adaptation. If the attempt is made to grind both to permit proper setting of bridge the pulps may be exposed and require removal, or both may become so sensitive that the patient will not submit to proper grinding. The device here presented will avoid all such complications.



The crowns should be made to fit the piers accurately, placed in position, and an impression taken with plaster of Paris. Place crowns carefully in position in impression and pour model. Remove impression, and pier crowns will appear on the model in their relative positions. Swage and fill in cusps of bridge as in ordinary case. Make a dovetail of thin platinum.



This may be made with a small pair of flat pliers, or over a small three-sided file, holding two thicknesses of platinum together. Be careful that the pieces of metal are held in absolute contact, and the result will be a perfect double dovetail.

Set the dovetail on model parallel with axis of either pier (anterior one preferred). Grind in and set the facings, being careful to have the buccal edge of dovetail touch the backings of facings. Invest each portion of the bridge

separately before removing from model, leaving portion of dovetail exposed. This will hold all parts in position, and permit separation at the dovetail. Cut away the model from the bridge and slide apart the sections at dovetail. Complete investment, and solder. Be especially careful that the dovetail of each section is thoroughly covered by investment, for if the smallest particle of solder flows on the surface, the sections will not go together.

The section in which the pier crown and the dovetail diverge, must be set first. The other section having the dovetail and pier crown parallel, will slip to place without difficulty, thus avoiding grinding of natural teeth or mutilation of the bridge. It is best to apply gutta percha or chloroform to the dovetail when last section is set, making a tight joint.

Syphilitic and Tuberculous Infection of the Mouth.

BY DR. J. W. RUSSELL, Brooklyn, N. Y.

Read Before Second District Society, at Newburg, October, 1896.

In syphilitic infection of the mouth, there are two dangers: first, the transmission of syphilis from one patient to another; second, the infection of the dentist through some cut or abrasion on his fingers.

A short time ago there were reported a number of cases where the primary sore, or chancre, was found in the mouth, tonsils and throat. We all know how this is caused, in a certain class, but where the patient is known to be of a high moral character and in the cases of women, whose purity is undoubted, the theory of sexual infection must be excluded.

The saliva of a syphilitic is rarely dangerous until the appearance of secondary symptoms say from two to three months after inoculation. One of the most important of secondary symptoms, is the mucus patch in the mouth and throat, yet I have seen a number of cases of true syphilis, where the mouth appeared perfectly healthy. Herein lies the danger; it is

Sources of Syphilitic Infection.

so easy to use the mouth mirror, which of course has been wiped off after a fashion, to examine the next mouth. If there should happen to be an abrasion, how easy it would be to inoculate the patient. Even an abrasion is not necessary, because the crypts of the tonsils are peculiarly susceptible to the syphilitic germ, and any floating in the saliva would lodge there. It would be almost impossible to give facts to support these assertions, because no one could tell exactly at what time he was inoculated. Nevertheless, the fact

remains that the shiftless cleansing of mouth mirrors and instruments exposes patients to great danger.

The question, how long is the saliva of a syphilitic capable of communicating this disease to another, is extremely difficult to answer, but I believe that it is wise to exercise great care until the tertiary symptoms are on the wane. This varies from one to three years after the primary lesion.

How are we to know that a patient has syphilis, if there are no lesions in the mouth? If the patient, or the family physician does not tell, there is no way of knowing, hence the greater necessity for the absolute sterilization of every instrument that goes into the mouth. The number of offices where the mouth mirror is not sterilized before passing from one mouth to another is beyond enumeration.

The danger to the dentist is not imaginary, for if he has any cut or abrasion on his fingers, and they are moistened by the patient's saliva, he stands a good chance a few weeks later of developing a chancre. The number of physicians and nurses who have acquired syphilis from inoculation, through the medium of patient's secretions, is not small, and there is no reason why dentists should be exempt.

That tuberculosis is an infectious disease, has been demonstrated beyond all doubt. It has been proven that a comparatively healthy person may become inoculated with this disease, through the mouth or nasal passages, and in some cases die in a few months. How far is the dentist responsible? We all have tuberculous patients, and there is great danger that we may assist transmission. Their saliva swarms with the tubercle bacilli, and these, when removed to a new field, multiply with great rapidity.

There is a mouth mirror now on the market that can be taken apart and boiled without injury, and something of this kind should be used.





Brooklyn Dental Society.

TWENTY-NINTH ANNIVERSARY BANQUET.

The twenty-ninth annual meeting of the Brooklyn Dental Society was held on the evening of December 7, 1896. Upon this occasion the society had decided to tender a complimentary dinner to Dr. H. G. Mirick, who was the first president of the society, and to Dr. W. B. Hurd, who is not only the present president, but who had just completed his fiftieth year of continuous practice of the profession of dentistry. Through the courtesy of Dr. J. P. Geran the society was enabled to celebrate this anniversary in the luxurious parlors of the Oxford Club.

As this was considered a sort of family reunion, none but actual members of the society were invited to be present, and the following gentlemen sat in convivial and confraternal companionship around the well-appointed table: Dr. Wm. Jarvie presiding, with the guests of the evening, Drs. Hurd and Mirick on either hand; Dr. A. H. Brockway, Dr. O. E. Hill, Dr. Chas. D. Cook, Dr. J. P. Geran, Dr. O. E. Houghton, Dr. M. L. Thompson, Dr. W. J. Turner, Dr. R. J. Hutchinson, Jr., Dr. H. L. O'Brien, Dr. J. R. Farrar, Dr. W. H. Johnston, Dr. F. T. Van Woert, Dr. J. A. Schmitt, Dr. R. Ottolengui, Dr. Louis Shaw, Dr. C. F. Graves, Dr. Daniel L. Skinner, Dr. J. W. Russell, Dr. C. Allen, Dr. V. F. Parker, Dr. Chas. Hubbard, Dr. L. G. Wilder, Dr. J. H. Race, Dr. A. G. Wooley, Dr. Abbott, Dr. F. W. Moore, Dr. F. C. Walker, Dr. R. C. Brewster, Dr. Robt. Holly, Dr. D. W. Barker, Dr. C. B. Parker, Dr. M. E. Elmindorf, Dr. Chapman, Dr. Theo. Siqueland, Dr. D. A. Fuller, and Dr. J. B. Brown.

When the coffee and nuts were reached, Dr. Jarvie most felicitously expatiated upon the intent of the society in thus honoring its first and last presidents, touched lightly upon the age of Dr. Hurd, whose genial countenance proved that the years had but lightly touched him, whitening his locks, merely adding thereby to the attractiveness of his countenance, but in no wise lessening his vital energies. He then called upon Dr. O. E. Hill, whom he introduced as "one of our youngest members."



DR. H. G. MIRICK.

ITEMS OF INTEREST

Dr. Hill responded most happily, accepting the gauntlet thrown down by Dr. Jarvie, and, admitting his extreme youth, he also paid a tribute to the wonderful manner in which Dr. Hurd had kept to the fore in his race with old Father Time. Dr. Hill made a retrospective detour into his own past, and recalled a day, while still in knickerbockers, when, as a child of ten, he had permitted Dr. Hurd to extract a tooth for him, and he assured the assembled company that at that time Dr. Hurd seemed as venerable as now.

Dr. Hill was followed by a number of others, all of whom paid courteous compliment to the guests of the evening. Those who thus responded were, Drs. Brockway, Van Woert, Houghton, Cook, Ottolengui, Johnston, Chapman, Geran, and Race. Dr. Brockway related an incident as giving a possible clue to the age of Dr. Hurd, a matter upon which there has been more or less speculation for the past twenty years. According to Dr. Brockway, Dr. Hurd was once walking along a crowded thoroughfare, when one urchin addressed another, crying out, "Look! There goes the oldest man on earth!" Whereupon the other retorted: "No! He ain't neither! That's the Apostle Paul!"

It is worthy of note that the general tenor of the speeches was personally reminiscent, all testifying to the advantage which society association and fraternal friendship had been in aiding their professional careers, so that it seemed that at least in this association of dentists the highest possible aim of confraternal alliance has been attained, each member looking upon all the others as personal friends, and all feeling bound together as with family ties.

Dr. Jarvie finally introduced Dr. H. G. Mirick, who
Dr. H. G. Mirick had served as the first president of the Brooklyn Dental
Speaks Most Society, and "who is the first, and possibly the last, man
Entertainingly. who will have been able, through the practice of his profession, to amass a competency which enables him to retire from active practice and live in comfortable ease for the rest of his days.

Moreover he has done this through no stinginess, through no niggardly hoarding, but by practicing a proper frugality, coupled with that liberality which is expected of all upright gentlemen in their association with other gentlemen. He is an example to the younger men, who might well follow his precept of so managing the expense account that at the end of each year the bank balance may be a little greater. Thus and thus only can the dentist hope to reach that enviable position of independence at the end of life which we are all so glad to see has been achieved by our first president, Dr. Mirick."

Dr. Mirick, in response, thanked the society for honoring him as a special guest of the evening, and proceeded as follows:

"I am doubly honored by being associated here to-night with Dr. Hurd, whom we all love and have loved for so many years, that it is a fair question which we put to each other, but dare not put directly to him, for us to ask:

‘How old is he anyway?’ It is possible that I may be able to give a hint from which the doctor’s exact age may be computed. I remember that about thirty years ago a number of Brooklyn dentists were journeying back from Albany, when our train was stalled by a snowdrift, and we were delayed for several hours. Our party split up into groups and discussed various topics. Where I sat the question of Dr. Hurd’s age came up, and, after various and very divergent guesses had been made, one elderly gentleman, who claimed that he had been present at Dr. Hurd’s christening, assured us that Dr. Hurd was then seventy years of age. As this authentic statement was made thirty years ago, those of you who have any ability at mental arithmetic may make your own deductions.

“As I sit at this banquet, I am forcibly reminded of the first dinner given by this society, a dinner which possibly inaugurated the custom of dentists meeting around the table, for so far as I know it was the first dinner at which the guests were exclusively members of our profession. The occasion was the celebration of the tenth anniversary of our society’s existence. At a previous meeting I had been chosen to prepare a short historical sketch of the society, and, having prepared it, I viewed my work with eminent pleasure. Satisfied, therefore, with the outcome of my labors I yearned for prompt commendation, and with the pages yet wet with the ink which had so fluently flowed from my pen, I repaired to the office of Dr. Hill, that he might listen to what I had written, and accord me a suitable place upon our programme. It was with great surprise that I noted the apparent lack of appreciation with which Dr. Hill drowsily listened to my well-rounded paragraphs, and I was somewhat chagrined when he sat erect with a start, as I laid aside the last page, and addressed me in words to this effect:

“Very good, doctor, very good. But don’t you think it would be better not to read that at the meeting? Wouldn’t it be better to keep it till after dinner, when the members, having dined well, and wine well, might be more patiently attentive and appreciative?”

“I returned home and carefully consigned the manuscript within a spacious barrel in which I have stowed away all of the many contributions which I have made to the literature of our profession. When I received the invitation to attend this meeting as your guest, I turned that barrel over, and, lo! there dropped forth this sole and solitary manuscript, still within its original envelope, wherein it has peacefully rested these nineteen years. I have brought it with me to-night, not with any idea of reading it, but merely to exhibit as a relic of our past.”

The doctor was here interrupted and urged to read the paper which he had prepared for the tenth anniversary meeting, and he did so. The paper follows:

**An Old Paper
Yet Most
Interesting.**

At a meeting of the committee of arrangements appointed to take into consideration the proper celebration of the tenth anniversary of the organization of the Brooklyn Dental Society, your humble servant was selected to write a history of the society, to be read at a meeting and dinner commemorative of the event.

At first modesty prompted me to decline the honor, and I made all manner of excuses. I plead lack of time, of brains to meet the requirements of the occasion, and suggested many others in the society who would do the work more creditably and more satisfactorily. But my objections were overruled as fast as offered. One member said I was getting lazy and wanted stirring up. Another depicted the honor of being historian to a society which had lived ten years and had lost none of the fire and vim of its youth. But the president, when he said that I was the proper person because I would write something dry (I presume he meant that I should make you all dry), used an argument which I could not withstand, and, like the woman so often alluded to, I hesitated and was lost.

Visions of the greatness of historians—of Josephus, Macauley, Bancroft and Artemus Ward—flashed through my mind and my pride was touched.

The honor of writing after my name all the letters in the word historian, and the thought that it might qualify me for membership in the Odontological Society, was too much honor for poor human nature to withstand, and I set about my task with spirits sustained by the glory which I was to hand down to my posterity.

In writing this history of the Brooklyn Dental Society, my information has been obtained from the records of the society, conversation with the members, and my own personal knowledge. There is an old saying: "It is a wise child that knows its own father." I had no difficulty in finding out who the father was; my only trouble was in getting any authentic information about the mother. That point is still in some doubt. But after searching with great labor among the archives of the society, and investigating into the habits of the father, I have come to the conclusion that the mother was a spirit.

Whether that spirit was Scotch, Bourbon or Old Tom, is yet unsolved, but is unnecessary for the purpose of carrying out my theory. My conclusions are that the father, while seated with a few congenial friends around a table upon which was placed one of the above mentioned spirits, conceived * * * * an idea that a society was needed among the dentists of our city for mutual improvement and acquaintance.

In furtherance of this conception an invitation was issued to twenty-six dentists of Brooklyn to meet at the office of Dr. George A. Mills, on Dec. 14, 1867, for the purpose, as the invitation said, of taking into consideration the organization of a Dental Society. Thirteen dentists accepted the

Organization of the Society. invitation and were present at the meeting. Their names were: O. E. Hill, E. L. Childs, I. C. Monroe, John Scott, Thomas Fry, A. H. Brockway, L. E. Brockway, Wm. Jarvie, Jr., N. M. Abbott, H. E. Bird, Geo. E. Bretz, Geo. A. Mills, and H. G. Mirick. Few of these gentlemen had even a speaking acquaintance with each other, and some evidently came more from curiosity than from any desire to participate in the object for which this meeting was called. But among these thirteen there were enough sincere earnest workers to form a nucleus around which to build the present prosperous Brooklyn Dental Society.

After this first meeting was temporarily organized, Dr. Mills expressed his conviction of the need of a local Dental Society in this third city in the Union, and offered the following resolutions: "Resolved that in these days of progress it is the imperative duty of the dentists of Brooklyn to organize themselves into a society for the advancement of dental science, as well as for the promotion of mutual good feeling and the increase of respect for each other."

This resolution was adopted and the first permanent officers elected were: H. G. Mirick, President; C. D. Cook, Vice-President; E. L. Childs, Secretary; Wm. Jarvie, Jr., Corresponding Secretary; and J. C. Monroe, Treasurer. The first Executive Committee, consisted of Geo. A. Mills, O. E. Hill, and John Scott.

At this meeting the secretary was directed to issue a general invitation to all the dentists of the city, inviting them to become members of the society. This invitation was to be kept open for two meetings, and all wishing to join the society subsequently would be required to make regular application.

One Who Already Knew Enough. At the second meeting nearly all the prominent dentists of the city came forward and enrolled their names as members. One of the original thirteen came early and excused himself for not staying to the meeting, as he already possessed the degree of M.D. and D.D.S., and did not think he could learn anything by attending the meetings. As one of the objects of the society was to elevate its members, in this case it would have been dangerous to raise such a mind any higher.

"And still they gazed, and still the wonder grew
That one small head could carry all he knew."

Every meeting increased in interest, and it was resolved to engage Prof. Rufus King Browne to deliver a course of eight lectures on Physiology. These lectures took up most of the time for five meetings, and were well attended. But at the sixth Prof. Browne struck for higher wages, and the contract was cancelled.

The original name of the society was the "Brooklyn Society of Dental Science and Art." Many members objected to this name on account of its

length, and there was a strong feeling that it was too pretentious. After considerable discussion it was decided to adopt the purely local and democratic name, the "Brooklyn Dental Society."

**Sharper Than
a Serpent's
Tooth.**

During the first year of this society's existence, the State Dental Law went into effect, and through our organization we were enabled to control the first meetings and perfectly organize to our satisfaction the "Second District Dental Society." We reared that child, nursed it while teething, spanked it when naughty. We thought it would grow up good, and become a comfort to us in our old age, but only a couple of years ago, just as it was cutting its eyeteeth, it began to put on airs and tried to usurp our place at the domestic hearth, and even ventured to kick us out of the house. Such audacity from one we had done so much for was severely rebuked, and we came to the conclusion that there was room in our city for two separate establishments, and that it was wrong for blood relations to quarrel. We decided to live at peace and harmony with our child so long as it behaved well and did not try to steal our position in society, our gold, and our honored name.

During the first years of our existence the minds of the members were active with new projects, and nearly every meeting developed ideas for advancement which showed a keen interest in our profession. It was not in our society, as in most societies, the work of a few leading minds, but it seemed as though every member was anxious to do something for the elevation of the society and the profession generally.

It was at this time that the project of the Dental Infirmary originated and at nearly all our meetings and special meetings, too, a great deal of time was consumed in discussions of the subject. Our visitors became rather disgusted with our constant talk about Infirmary and Dental Clinics, but it was one of the most noble movements which ever originated in any dental society, and we made our worst failure when we allowed it to die.

**The Dental
Infirmary
Established.**

We commenced our Infirmary in an attachment to a medical dispensary. Afterwards we rented a suite of rooms, furnished them with every convenience, obtained monthly by contributions of instruments, operating chairs, etc., from members of the society. Subscriptions were solicited from public-spirited citizens, and over thirty-five members agreed each to give one afternoon in a month to attend the Infirmary. In this way we had a clinic every day and our rooms were always open to members of the society, their students, and their friends. After the individual members had fully established the Infirmary, an appropriation was obtained by act of Legislature by which we were to receive annually fifteen hundred dollars from the city.

There was never a better opportunity to rear a dental school than was at

this time presented to us, and if our society had had the age and experience that it now has, instead of being in its infancy, it would no doubt have been a success; but, as it was, many of those who had agreed to attend neglected their duties altogether, or sent students to represent them, and the society, finding that it was impossible to continue the Infirmary with credit, concluded to discontinue it. We all look back at our Infirmary and feel that in abandoning the enterprise we lost a golden opportunity to elevate our profession, help the poor, and benefit ourselves individually by the study and practice obtained by the daily clinics.

**The Society
Incorporated
1869.**

As we grew in age, wisdom and wealth, it was resolved to have our society incorporated, and on Feb. 17, 1869 the following members made application for incorporation: C. D. Cook, O. E. Hill, E. L. Childs, Wm. Jarvie, Jr., S. C. Monroe, J. H. Ross, H. G. Mirick and Geo. A. Mills. The

application was granted April 5, 1869. In our articles of incorporation we specify "that the particular business and objects of this society shall be for the advancement of its members in Dental Science and Art, to encourage and maintain a high order of professional excellence, to interest and instruct the public in Dental Hygiene, and to establish a Dental Infirmary, that we may so far as is compatible with these objects professionally administer to and benefit the indigent."

After incorporation we adopted the code of ethics of the American Dental Association.

Our society now seemed to be founded upon a firm basis. We had passed through the first years of our existence successfully, and had had less of the diseases incident to childhood than usual in most societies.

Our members had become in our fortnightly meetings fully acquainted with each other and were surprised to find what a good sort of fellows we were, and as our intimacy increased we had a better opinion of our profession and were not ashamed to acknowledge ourselves dentists. We all looked forward with pleasure to our regular meetings and began to be proud of our society and of our own individual relations with it.

The office of president has been held successively by nine different members, a change being made each annual meeting. At first thought this might seem as though we lost confidence in the executive ability of each president after one year's trial. But it was not so. We went on the theory that a change in our standard-bearer every year was healthful and that new life and energy was engendered by such changes. It is said that the looker-on sees most of the game, and every new president was prepared to avoid the mistakes of his predecessor. Such a policy has been successful in our society and we possess vice-presidents who keep Cushing's Manual in their offices for reference just as they do the Bible and Webster's Dictionary.

I referred in the first part of this paper to the father of this society. We have always naturally felt a sincere attachment to him for his efforts in bringing us into existence. But some years ago he strayed from us, lured by some siren, and wandered in strange pastures, and we lost the benefit of his parental advice and counsel; but I am happy to record in this history that he has now seen the error of his ways and has returned to us and promises to remain true to his first love.

I cannot close these pages without recording historically the benefits and assistances which we have had from one of our active members, Dr. Wm. H. Atkinson. We have had no member more faithful and steady in his attendance at our meetings. No storms have been so severe as to keep him away, and he has seemed to take pleasure in bringing distinguished visitors to introduce to us. We have met with him so much, and on such neutral ground, that we have learned to love and honor him, and we take his whippings resignedly and like spoiled children. If we can catch him in an unguarded moment, with an unsupported assertion, we seize it and belabor him most unmercifully. To Dr. Atkinson we are indebted for the introduction of most of the new medical agents and new methods of practice. He has always been ready to advise and counsel us, and none of our clinics have ever been complete without him.

We have tried to follow his advice, but when he tells us to "inject a syringeful of sulphuric acid into an alveolar abscess in the mouth of a beautiful young lady, and then to kiss her and let her go," we, as a society, object to adopting it as a rule. But we have found his advice sound, and given with a certain knowledge of what he teaches, and the history of our society would be far from complete without a kindly mention of his services to us and expression of a proper affection for himself.

Meeting as we have at the residences of the members, it has become a custom for the host to set before his guests after the meetings some sort of refreshments. It makes no difference what it may consist of. Sometimes it is simply a glass of ice-water, with perhaps a stick in it. Sometimes a dish of fruit or a plate of sandwiches, and often we gorge ourselves with a full-grown oyster supper. It matters not what the quantity and quality is. It is the sociability which is developed. After we have taxed our brains with discussions of the technical topics of our profession, the half hour or so which we pass in relaxation, in feasting and sociability has as much influence in fraternally uniting us as the consideration of the scientific side of our specialty. Hot words spoken in debate and personal disagreement resulting from discussions are all forgotten over an oyster stew, and the sipping of a cup of hot coffee will cool all ill-feeling between rival debaters.

The reading of Dr. Mirick's paper was loudly applauded and it was evi-

dent that the company had not been just aroused by missing the sound of his voice, but rather that they had all been wideawake and closely attentive to his words. Dr. Jarvie was about to address the assemblage when Dr. Hill, with the nimbleness of his early youth restored by the reminiscient character of Dr. Mirick's address, arose in his place and offered the following resolution:

**Dr. Hill
Rises to Offer
a Resolution.**

*"Whereas, Dr. Mirick was appointed as historian to the society some nineteen years ago; and
Whereas, in pursuance of the edict, he did prepare a most entertaining historical sketch for the tenth anniversary of our society; and
Whereas, by his own confession just made he has during all these years kept that paper hidden under a bushel, or in a barrel; and
Whereas, the document is undoubtedly the property of this society, and should be among our archives;
Be it resolved, that this document be here and now delivered to our librarian, and that the librarian be authorized to procure a stout oaken box, supplied with two strong iron hinges and one burglar proof combination lock, and that he deposit this historical document within the described strong box, lock the same and promptly forget the combination, that in future the history just heard may forever remain in our custody."*

**Dr. Wilder
Amends.**

Dr. Wilder, the librarian, objected to the motion of Dr. Hill, though he approved of the idea of preserving the historical sketch, and he proposed the appointment of a committee who should have the paper printed.

**Dr. Ottolengui
Makes
an Offer.**

Dr. Ottolengui supported the proposition to print in the following words: "If the society will vote this matter to **ITEMS OF INTEREST** for publication, we will prepare a full account of this evening's entertainment, and subsequently furnish reprints to the members as a souvenir of the occasion.

As Dr. Hurd is unquestionably the handsomest dentist in Brooklyn, and probably in the country, his genial countenance reminding all who see it of that other great citizen of Brooklyn, the late Henry Ward Beecher, we would be glad also to publish his portrait, as well as that of our other guest, Dr. Mirick."

This proposal was accepted, and Dr. Jarvie then introduced Dr. Hurd, who addressed the company in his usual inimitable manner, causing much merriment at times, and genuine heartfelt applause when he spoke more sentimentally of the future of the members. His remarks in part follow.

**Dr. Hurd
Addresses the
Company.**

It is a great pleasure, my friends, after a number of years of professional work for a man to feel that he has the commendation, the goodwill, and, perhaps I may be excused for saying, the affection of his associates. I am deeply touched by the mark of your esteem which has been shown towards me to-night. I cannot fully repay you, but as I have observed during

the evening that you are all consumed by a burning curiosity to know my real age, I feel that the very least that I can do would be to give you some hint upon which you may base a guess. The reminiscences of the evening have carried me so far back into the past, and made me feel so rejuvenated, that I am a little muddled in my own mind as to the exact figures, and were I to venture to make a statement I am afraid that I would claim to be too young. But I remember that some twenty years ago I was walking upon a beach upon the coast of Maine when the most ancient-looking man that I had ever beheld joined me and walked beside me. "My friend," said he, "perhaps you may doubt it, but my eyes have seen the Father of our Country, General George Washington. Can you believe me?" "Why," said I, "you look old enough to be honest, and I find no reason why I should doubt your words." "Well," said the ancient party, "Perhaps not! Perhaps not! But, do you know, I have been wondering whether *you* had ever seen him."

I am pleased with this new departure of the old Brooklyn Dental Society from the ordinary course pursued by dental societies. I am glad that we will meet once a year, for a social evening among ourselves, without the discussion of a subject pertaining to the practice of our profession. It will give us an opportunity to become better acquainted with each other. How much do we know of one another? How many times have we spent an evening together save in a dental society? What do we know of each other except than that we are dentists? How many could go into court to-day and from personal knowledge swear to the character and condition of half a dozen of the members of this society? We could give only a negative answer were we asked the question. "I never heard of anything against him."

I have always had a kindred feeling toward any good reputable dentist; I feel a nearness to him as you feel a nearness to your own kin. I never go into the country and see the sign of a dentist that I do not go to see the man, for he is of my own kin. I say I like this new departure. There is something else in this world besides dentistry to learn; I am fond of dentistry, but I do not want it constantly. It is not good, either mentally or physically, to devote yourself to one thing. Nothing serves better to make a crank of a man. He will soon get so that he cannot think or talk of anything else. The dentist requires relaxation from his vocation, shut up as he is in his office from one year's end to another; bent into every conceivable shape; breathing air which, if inflicted as a punishment, would be regarded as a severe punishment; looking upon dilapidated humanity; listening to groans and sighs; seeing distorted faces, at the same time racking the brain to find some means to accomplish an object; patients placing every obstacle in his way and apparently feeling at perfect liberty to make his house ring with his yells; complaining about the bill, saying that a dollar is a large price for extracting a tooth, as it took but a moment to do it. I wonder how they would like to bargain



DR. W. B. HURD

to pull by the hour. I remember extracting a tooth for an old lady. She asked me how much it was. I said "one dollar." "Oh, law!" said she, "I could get it pulled at Long Branch for that."

Dentists
a Happy
Class of Men. Dentists as a rule are a happy class of men. Liberal, free-

hearted, anxious to have a good time themselves and to have every one else have the same. When away from their offices, they are like horses turned into new pastures; they must run and caper until they shake off the hide-bound condition of their old environments. I have observed the profession for the last fifty years, and I know that there is not a more natural set of men than they are. It is good, brethren, sometimes to get away from every cumbering care, as we have done this evening. Have a day's shooting. The trip to Newburg on the boat is better than the meeting itself. Whether this is true of the trip to Albany or not depends on whether you lose or win in the poker game. I repeat, it is not well to confine ourselves too closely to one thing. It is said of an old woman living down on the end of Long Island that she had never eaten anything but clams, and she ate them so long that her stomach rose and fell with the tide. I don't believe that that "heave and set" condition is desirable. Dentists as a class are more than ordinarily intelligent. They are well received by a discriminating public and polite society, and why should they not be? They have done more to smooth and make agreeable the pathway of poor human nature than all other professions. They have made poor dilapidated humanity presentable. Take away to-day the appliances that have been placed in the mouths of people by dentists, and what would be the condition of one-half of the community? A poor, dependent set of mumblers of food, almost unable to articulate, scarcely recognizable by their own friends. Nose and chin near neighbors. How many of your regular pastors would enter their pulpits on the next Sunday? How many lawyers would plead their cases? How many judges would charge the jurors? How many men would be taken for their own grandfathers? and women for their grandmothers? What kind of a breakfast would they make? What a flying around there would be for a dentist. There would be no crying hard times; there would be no waiting to see whether McKinley's rule would make times better. They would all find their cash or try their credit, or pledge their old shoes.

Dr. Hill's
Bicycling
Experience. Dentists, as I said before, are a happy set of men. They love to talk, they love to eat, they love to walk, they love to ride. Some, I am told, ride the bicycle exceptionally well, and *others do not*. I was pained when I saw that our good Dr. Hill had gone a *leg* on it. I could but think of the Doctor

sitting on his wheel, rushing through the air, and a moment later, after the fall, how appropriate the song descriptive of Rome: "Rome, Rome, thou art no more as thou hast been—on thy seven hills"—not bicycles—"thou sittest a queen."

The description, I think, is good, except the queen part. I never heard of his being a woman. I suppose, having received such a severe injury, the doctor thought it was a wonder it had not broken his neck. We are all exceedingly glad it did not; but if he had broken his neck, instead of being here, in a short time he would have been so different from that Hill of Zion that is said to yield a thousand sacred sweets.

Yes, my brethren, he would have been

“ Aloft in some fair dominion,
From time and change all vernal still,
And there would have been no power or pinion
To reach that ever-blooming hill.”

We rejoice that he is floating on the “sticks.”

Our good brother Jarvie, I understand, has been *ankle*
Also Drs. deep in the business. If I were a betting man, I would
Jarvie and wager considerable that when he fell, before he reached the
Van Woert. ground he framed a resolution, and if he was not afraid of
the charge of contributive negligence on the part of the

wheel, he would by this time have had a bill prepared for the Legislature this winter forbidding the oversetting of bicycles. And our good brother Van Woert, I am told, took a *hand* in it that involved the whole arm. I have wondered whether when he fell and saw stars, he could possibly have thought of a line in that old familiar hymn, “Who tipped your wing with gold?” Solid gold tips, of course. I am glad that the trio are left to us. As painful and disagreeable as it was, we can have a little fun over it.

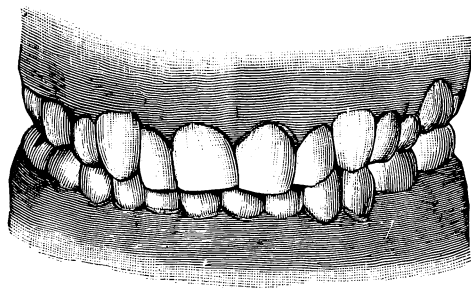
And now as we leave the ridiculous, I want to say to you that I regard it as very kind of you, my brethren, to have extended to me the honor of being your guest to-night. It is a proud feeling to be familiarly recognized by those with whom you are acquainted. I do not know of any happier feeling when the night comes on and the day's work is done than to hear said, “Well done, good and faithful servant.” In every heart there is a response for kindness, and for your kindness my heart breathes forth the prayer that God may bless you all.





Theory versus Practice.

The case under discussion this month was kindly furnished by Dr. C. Edmund Kells of New Orleans. The patient was a lad of fourteen, working for his living, and it was stipulated by his parents that the regulation should be completed with a minimum expenditure of time and money.



**Dr. Jarvie
offers a
Suggestion.**

I am in receipt of the models sent by Dr. C. E. Kells, but, in the relation of the conditions connected with the case, am left uninformed upon two points which are somewhat important to know in determining upon the best method of treatment under the circumstances.

These points are, the age of the patient and the contour of the face, whether full and round, calling for a full arch, or with rather small and pointed face, where an arch of smaller dimensions would be in harmony with these features.

The patient was poor, and time to go to the dentist extremely limited.

With the information at hand, and under the known circumstances, I should extract both of the upper and the right lower bicuspid. Then gradually wedge the superior central incisors quite far apart with tape or wood, which would force backward a little the three teeth on either side of the center of the mouth.

Then insert a rubber plate, covering the roof of the mouth, to be held firmly in position by and resting against the three back teeth on either side. The plate should not be in contact with the front teeth, except at the disto-lingual angle of the centrals, against which the plate should rest. Vulcanize

into the plate a T made of gold clasp material, which should pass between the separated centrals.

This plate in position, and the points of the T bent a little every day (possibly by the patient), would in a very short time force in the projecting point of the centrals, while the plate, resting against the disto-lingual angle, would prevent the teeth from being forced in bodily.

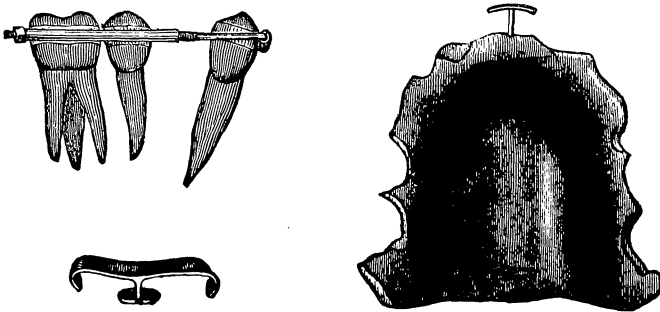
The action would be to force backward the three teeth on either side of the center, and to rotate the centrals, using the disto-lingual angle as a fulcrum, that part of the teeth being already in the desired position.

WILLIAM JARVIE, M.D.S., Brooklyn, N. Y.

How

**Dr. Guilford
Would Proceed.**

In all cases of teeth irregularly placed, where they are in contact, we have to decide between two methods of procedure, one *extraction*, and one *expansion*. In the case before me, as far as I can judge of the patient's appearance, the best results would be obtained by anterior expansion of both arches, but as this would be slow and tedious work and necessarily expensive on account of the time consumed, and as you say the



patient is "poor both in time and money," I would advise the extraction of both superior first bicuspid to afford room for bringing the cuspids down into line.

The cuspids could be most expeditiously drawn backward by a screw or nut operating between the cuspid and second molar and attached to bands cemented to these teeth. Following this, a bow could be placed around the front from molar to molar and the laterals drawn out to it by means of rubber bands. Lastly, the centrals could be rotated by the gold "double T" devised by myself a year ago.

In the lower arch I would move backward the left first bicuspid, cuspid, lateral and central by means of a coffin vulcanite plate and piano-wire spring, operating from the inside.

A plain vulcanite plate with gold T attached to pass between the centrals would serve as a retainer above, and a delicate vulcanite plate of horse-shoe pattern fitting well between the teeth at the cervical margin would answer below.

DR. S. H. GUILFORD.

**Dr. Geran
Recommends
a Method.**

With Dr. Kells's case, I would proceed in the simplest manner possible, whether the patient were rich or poor.

I would strike up German silver plates to fit the molars and bicuspsids, solder either gold, iridium or piano wire to the plates opposite the first bicuspid, extending over the labial surface of the incisors sufficient distance to move the teeth forward. Cement the aforesaid plates on the teeth with oxy-phosphate and tie small rubber tubing bands to the wire, allowing it to slip over each individual tooth to draw them forward.

When completed, would make stay plates to keep them in position long enough to become fixed. This method applies to both upper and under teeth.

DR. J. P. GERAN, Brooklyn, N. Y.

**As
Dr. Hofheinz
Sees It.**

My view is that the inferior teeth should be drawn over toward the left, which can be done by either the Jackson method, or using the molar and bicuspid banded as a fulcrum. If time is a great question, I believe the superior jaw can be easily regulated by extracting the first right bicuspid only. The median line of the superior jaw according to the model seems to be somewhat toward the left, which would partly justify the extraction of the right bicuspid only. After the extraction I should use the Jackson method or put in a coffin plate, drawing back the right cuspid, pushing down the left cuspid, and rotating the right central at the same time. This would bring the median line possibly a trifle to the right, but would probably bring it in direction with the lower median line which is considerably to the right of the jaw, and I apprehend will remain so in spite of the moving over of the four teeth to the left. This is by far the least complicated plan that I can think of for a man that has to devote his time to the shop.

DR. R. H. HOFHEINZ.

**Treatment
Proposed by
Dr. Essig.**

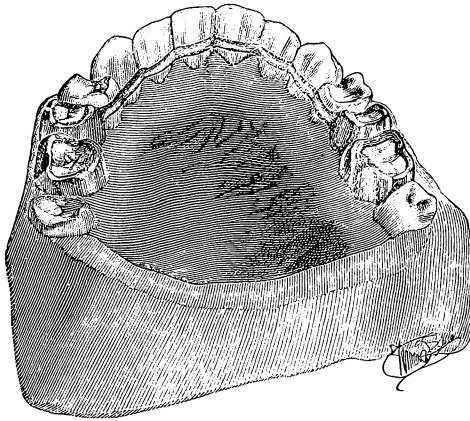
The treatment of a case of irregularity is always materially influenced by the circumstances of the patient, and his ability to devote the time required for it.

If he worked for his living and needed all of his time in his employment, as is stated in connection with this case, I should resort to the simplest means of correcting the irregularity, which

would be to extract the first superior bicuspid, providing always the patient was not over fifteen years of age.

The crowding of the teeth being relieved, the incisors and canines would soon assume their proper positions, while the spaces left by the extraction of the first bicuspid would speedily close, partly from the moving back of the canines, and partly by the going forward of the molars and second bicuspid, incident to the advancing of the wisdom teeth.

If, however, the patient could afford the time and expense of the more pro-



tracted method of expanding the arch and drawing the teeth into position by pressure, I should prefer that method. A stout platinum-gold bar with caps for attachment to the first molar and second bicuspid on each side, might be effectively used. This bar, made either of gold or German silver, should be not less than No. 25 of the standard gauge and an eighth of an inch in width. To afford stability to the fixture, the caps should enclose two teeth each, the first molar and second bicuspid, and should be secured by oxy-phosphate cement. Ligatures cut from French rubber tubing thrown around the incisors and secured to the bar would probably soon bring the teeth into their right position. The manner in which the ligatures are attached has of course much to do with the celerity with which the work is accomplished in these cases.

For instance, the right, superior, central incisor in the model under consideration, would require to be turned on its axis; this may be accomplished by tying the ligatures by means of linen cord (gilling twine), to the labial the surface of the central tooth, and then carrying the rubber ligatures between two central teeth and then to the bar by bringing it between the central and the neighboring lateral incisor. The left central and the two lateral incisors do not need rotation and would merely require to be drawn outward sufficiently to bring them symmetrically into line.

The same general treatment would be effective in correcting the irregularity of the lower teeth, and I should use the same appliance.

As a retaining device, I should use a fixture, consisting of a platinum-gold or German silver wire, No. 17 of the standard gauge, secured by caps enclosing two teeth on each side. This wire should be accurately fitted to the lingual surfaces of the teeth which have been moved to a proper alignment, as shown in accompanying drawing. To afford facility and thoroughness in the use of the tooth brush while the retaining fixture is worn, round wire should be used in its construction.

CHAS. J. ESSIG.

**What
Dr. Kells
Accomplished.**

On February 6th, last, this case was commenced by the extraction of the two upper first bicuspid—the patient being a boy about 14 years old, and the request having been made by the parents that the greatest amount of good be done for the patient, for the least possible cost.

Thus the removing of the bicuspid was at once determined on, as that was the readiest manner in which to comply with their wishes.

On March 19th, a plate was inserted (figure 2) with stout spring gold wire around the cuspids as shown. By the continual bending of these, from day to day, the cuspids were rapidly pushed back into the vacancies caused by the



removal of the bicuspid, with but little inconvenience to the patient, and by the 24th of April they were in their proper places.

On this date another plate was made with wires to retain the cuspids in place, and for the attachment of rubber rings by which the laterals were drawn into line.

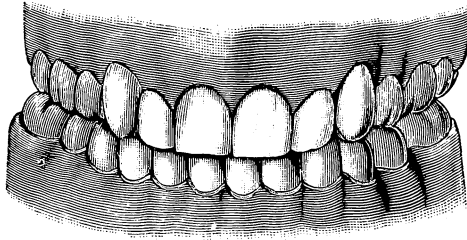
At the end of one week, May 1st, these were up against the cuspids and well in line, so they were ligated to the latter, which in turn were still firmly held by the plate.

The centrals were then started by a wedge and then drawn down in place by rubber rings, being twisted into place by being drawn against the plate.

By the 25th the six anterior teeth were well in line, and with the cuspids still held firmly by the gold wires and retaining plate, the four incisors were ligated to them, while a retaining plate was being made, which was inserted on the 30th of the same month.

In the meantime, about May 18th, the lower centrals were started with a wedge, and, two days later, to a piece of toothpick reaching from lateral to lateral, inside the arch, were attached rubber bands, which were slipped over the centrals.

By this means, that is, rubber bands used with a piece of wood toothpick inside the arch, the lower incisors were drawn in and twisted and made to line up, and by the 26th they were all right and firmly ligated in place by a



ligature extending from cuspid to cuspid, in which manner they were held until July 15th.

The casts to show the completed case were taken on October 15th.

Considering the fact that it was desired that the work be made as inexpensive as possible, the loss of the first upper bicuspid was not considered.

The upper teeth were easily aligned by the means described, and no plate was found necessary to do what was desired in the lower jaw.

In consequence, a very fair result was obtained, and the great improvement in the appearance of the boy was perfectly satisfactory to the parents and the patient himself, while the bill was light owing to the little time and trouble occupied with the work.

I consider that it will be necessary for the retaining plate to be worn for eighteen months from the date of its insertion. The case was in charge of my associate, Dr. F. A. Roy.

C. EDMUND KELLS, JR.



Office of Dr. C. Edmund Kells,

NEW ORLEANS, LA.

There is no reason why a dentist should not be in the midst of as pleasant surroundings in his office as he is at home; and, as the nature of his work and his callers permit it, he should take the same pride in one as in the other.

His patients being largely of the gentler sex, it is most suitable and agreeable to them to be ushered into an attractive and well-lighted reception room, with comfortable chairs, and standard periodicals, and where pleasing coloring of the walls, and growing plants, will render their waiting more restful than irksome.

The selection of office quarters must be governed by the usual practice most in vogue in the individual locality, but light and ventilation are always most to be considered.

In the large cities, the modern office building is greatly in favor, and wisely, too, for its advantages over an office in a city residence are many.

Naturally in these, where space is rented by the square foot, economy of the same is an important factor, and so it is essential to have the suite of rooms well planned.

The accompanying floor plan shows the arrangement of our offices, consisting of a reception room, two operating rooms, a consultation office, a retiring room, laboratory and storeroom; and the following is a brief description of them:

This suite is on the fifth floor, and all the working rooms have large windows giving a north light, while the distance above the side-walk line insures freedom from dust, privacy, and the very best light obtainable.

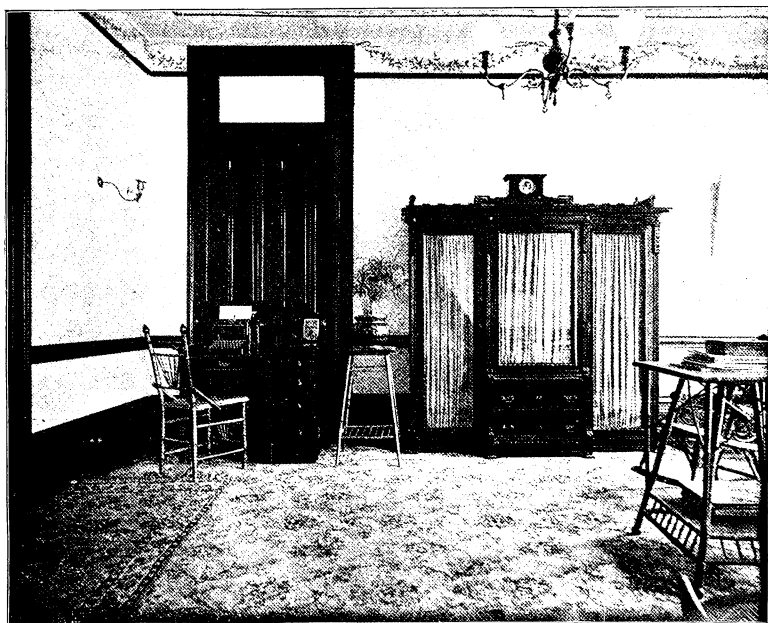
In the reception room, and immediately to the left of the entrance door, is the secretary's desk, conveniently placed for the performance of her various duties. A book-case here has its glass doors draped to conceal its real purpose, one part being devoted to the keeping of the office linen, another to our supplies, while the remaining compartment is given over to the private use of the young ladies connected with the office.

Opening directly into the reception room, and separated from it only by a portière, is my own operating room. This is roomy enough to also admit a

generous sized desk and filing cabinet, the latter especially necessary to running a practice on a business basis, and I believe deserves special mention.

It is a "Shannon Filing Cabinet," made specially to suit my own requirements, and contains nine files and three drawers.

Three of the former are used respectively for personal letters received, copies of letters written, and paid bills for the current year. The next three for the same, for the previous year. The others, and the drawers find their various uses in classifying catalogues and circulars, and letters and documents pertaining to other than professional matters in which I am interested. Thus, from the cabinet, any letter or bill received, or copy of letter written, within the filing period, or circular saved, may be obtained instantly.



The dental cabinet shown to the right of the operating chair was designed by me to meet my own special requirements. It is three feet long by three feet high, and twenty inches wide; contains twenty-six drawers, varying in depth from three-fourths of an inch to four inches inside measure, and also two compartments with doors.

Six of the drawers and both compartments open from either side, that my assistant can use them advantageously, and in these are kept such things as she may require. For instance, one holds the napkins which she uses for wiping the instruments; another (lined with zinc) holds her strops and polishing powders, with which she literally wears out my instruments; another

holds towels, and so on. One also is a trash drawer, and this is lined with a Russia iron tray, which is removed at night, cleaned and aired until morning. One of these drawers, at just the right height from the floor, is fitted with a removable bench block, and when seated before it, the same work can be done as at the laboratory bench.

While this is undoubtedly an innovation in dental cabinets, it needs only to be seen for its many advantages over the stereotyped form, to be appreciated.

With its twenty-six drawers and two cabinets, it will more than hold about everything needed in an office, and withal, with its velvet lined drawers and highly polished instruments, neatly arranged therein, each individual one in



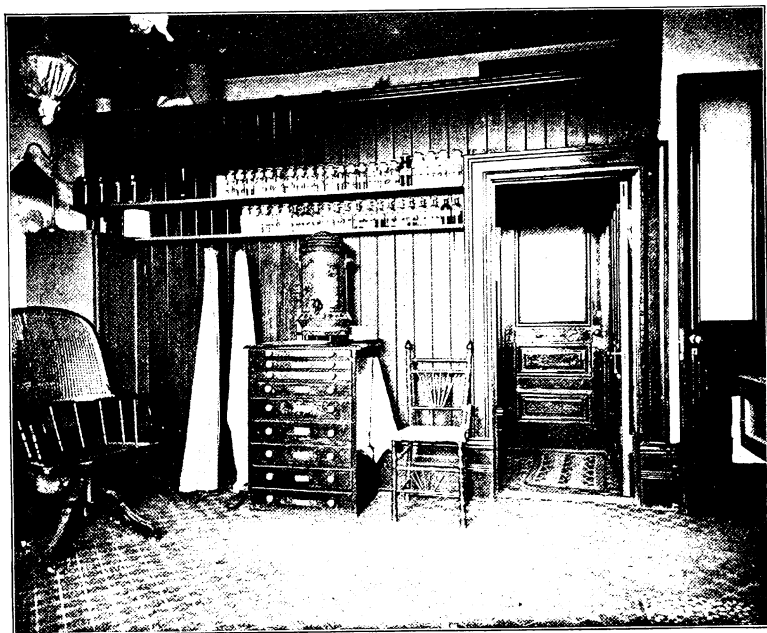
its own place, presents a very attractive appearance. Its flat top is very useful, and its height is specially advantageous.

Upon the wall and to the right of the electric engine (in the picture it looks as though it was on the cabinet but in reality it is not) a little tea pot containing water is kept constantly warm by a small gas jet. Thus, warm water being always at hand for the syringing of cavities, the infliction of much needless pain from the use of cold water is prevented.

And there also is a gas outlet to which is connected the rubber tubing of the blow pipe, so that any small soldering for crown work is done right at the chair.

A very convenient little trick is the following: On the bracket arms two electric wires are tied to two small insulated brass posts.—To light the annealing lamp, a small metal brush is first dipped into alcohol contained in a small inkstand always on the bracket-table, and then wiped across these electric terminals; the contact of the metal brush causes a spark, the spark lights the alcohol on the brush, which in turn becomes a torch by which the lamp is lighted. Thus in two seconds the lamp is lighted without the bother of matches and their attending nuisances.

Adjoining this operating room, but *not* opening into it, is a small retiring room, which is an essential feature of the office. In one corner is a locker for



coats and hats, and above it one for general storage purposes. A lounge permits a patient, who for any reason is indisposed, to rest quietly, for an indefinite time, without interfering with the progress of the day's work. In this room is also kept the office safe, a good place for it, as it is convenient, and yet out of the way.

The next room is also an operating room, of good size, conveniently arranged and well lighted.

Next comes the consultation office, also used for extracting, and, as it is adjoining the laboratory, is conveniently situated for, and is used entirely for prosthetic and regulating work.

Next comes the laboratory. While I am not an advocate of lace curtain at the windows and velvet carpet on the floor of a laboratory, neither do I go to the opposite extreme.

I see no reason why the floor should not be covered with a neat linoleum, and the whole room *usually* present a neat appearance.

This room is conveniently arranged, well lighted and airy. A flue, built in the wall, serves to carry off the acid fumes.

A small furnace, modified to suit our own requirements, allows the baking of good-sized blocks for porcelain bridges or partial plates. In plainly labelled druggist's bottles are kept the various drugs, etc., required for all purposes, and these are never allowed to become empty. Also to be seen are the two foot engines, kept here for a purpose—that they will be constantly kept clean and in order in case of a break-down of the electric engines or a failure of the current.

Lastly, comes the store-room, where the soiled linen, the brooms and brushes, and the innumerable things that should not be seen must be kept. Yet “a place for everything and everything in its place” is the rule that holds good here as elsewhere, that no time may be lost in looking for anything that may be needed.

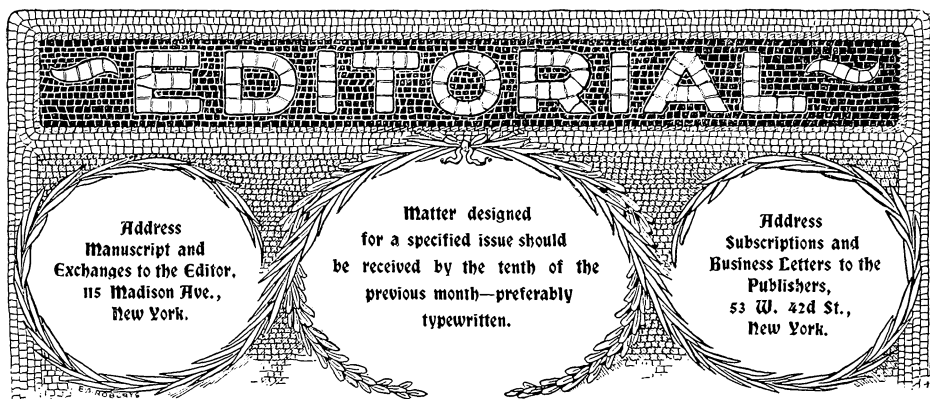
This room opens out into the main hall of the building, and pactly gives a *back-door* to our suite of rooms, a fully appreciated feature.

Thus we have, in a comparatively small floor space, a suite of offices so arranged that each room is accessible by a private hall, and eminently adapted to the purposes intended, and so obtained because the space was leased before the foundation of the building was laid, and the plans drawn by myself.

Every convenience in the way of plumbing, electric lighting, call bells, electric fans, hot-water heating, etc., has been carefully thought out and used to advantage; which, added to the service of well-trained assistants, allows the maximum amount of work to be accomplished with the expenditure of a minimum amount of time and worry, and so renders the work of the day a pleasure.

C. EDMUND KELLS, JR.





Our Policy for the Future.

Upon assuming the management of Items of Interest, we were confronted with a problem, upon the solution of which would depend the success or failure of the enterprise. This problem might be summed up in a few words: "What

The Problem of Dental Journalism.

policy will best please, best serve and attract the greatest number of the dentists of the world?" The eminent success of Items of Interest in its old form made one naturally hesitate before inaugurating any revolutionary departure.

But this hesitation rapidly dwindled when letters, actually numbering several hundred, arrived urging that the change of proprietorship should be synonymous with a change of conduct. But, while we were pondering over the problem, it is interesting to note that other minds were engaged with a consideration of the same subject, and, before giving our own solution, it will not be unprofitable to briefly state the views of three or four who have recently voiced their opinions. In the "Dental Review" for October, 1896, is published a paper by Dr. W. Girling, and a report of a discussion thereof. The following is an excerpt from Dr. Girling's paper:

Dr. Girling expresses his views.

I chanced to be sitting at luncheon, a short time ago, in a minor capacity, and as the pie was being quartered into three halves and distributed, the question was asked my neighbor on my right, "Doctor, what do you think of our literature?" He grinned, and, replying, said: "It's all right, I guess, for all I know; I haven't time to read it very much." Later on, entering the office of this friend, he showed me a pile of journals several feet high which had been left just as they were received from the mail, the

wrappers still on. Yet this gentleman is a contributor whose writings are eagerly sought after and read.

Again the question was propounded to a friend who had more hair on his head: "Doctor, what is your opinion of, and how do you read, your journals?" A pleasant smile trickled across his face and hid itself under his brow as the wrinkles gathered in deep furrows of thought. Finally he replied in words like these: "I probably have a chance to see more journals than many of you, and am compelled to take in at a glance the general tone of the contributions, while I scan the contents for some particular article or line of thought that has occupied my attention before, and in which I am interested." Another volunteered the information that he always began at the back part of the journal and read the advertisements first. I presume he is not far away from the majority in this act, and so the reading of certain dental journals by certain members of the profession, extracts of that journal a certain elevation, constantly demanding nothing but that which every dentist, as a member of a scientific profession, ought to know and be interested in—nothing which is not comprehensible to any man fit to practice dentistry. It has been suggested that much good could be derived from a quarterly or semi-annual digest publication—one that is a digest and would give the pith of special investigations and research gleaned from regular monthly journals. The lengthy reports of the proceedings of societies continued from month to month would be condensed, and, if the paper and discussion were properly assimilated, there is no doubt that such a journal would be gratefully received.

The discussion which ensued was opened by Dr. Ottofy, who was at one time associated with the editorial department of the "Dental Review," and later published the "Dental Tribune," and who has recently been elevated to the editorship of a fraternity journal, which boasts of a Greek name, printed in real Greek letters on bright blue paper. The doctor consequently speaks from a ripe and varied experience. A portion of his remarks are quoted:

**Dr. Ottofy
speaks from
Experience.**

The essayist mentioned one important subject, and that is, having material presented to us in the form of digests, in the form, as it were, of a "review of reviews." A number of attempts in that line have been made, but none of them has as yet succeeded. When the "Dental Review" was organized ten years ago, with which I was connected, it had the same object in view that the "Digest" has to-day. That is, we intended to give a review of all magazines, and give the best of everything to the readers from month to month. Well, that was impracticable; first, because the journals came irregularly; second, it was an enormous amount of work for which there was no compensation; it was a labor of love. Now, labor of love is not done for a long time by any one. New men have to take the places continually, and new men must learn; so that it did not turn out well, and we put in papers and communications that we received, and gradually entered the stereotyped rut that things of that sort soon find. I see the "Digest" has similar trouble.

Another thing which that character of literature contends with is that men differ in what they want digested. Take a digest of a lot of matter that

I do not care about, and it is useless to me, while again things that I want to read may not be properly digested. The man may have left out what to me is most important.

**Dr. Grouse's
Digested
Views.**

Now let us come to the "Digest." I had an idea when I started a journal that I could fill it with digests of the other journals that come out the month before. But the average dental journal does not have very much pith in it; it is a rehash from one to another. It is often filled with papers that have been read in societies. You talk about original articles. How many original articles are there in the dental journals of the United States? A paper that has been read here is not original: it is a paper that has been read at the society. That does not hurt it, but nevertheless it does not come under the head of an original article. Then it is copied, and the journals copying do not say that the article has been previously published by another journal. They are not fair with each other; there is a lack of genuine integrity throughout the transaction. Well, what is the reason? There are but very few journals published to-day that are not trade journals, that are not dominated by some supply house, and it is very hard for a journal to live that is not.

But when it came to digesting an article, I made some digests myself, and I made every man mad that had written an article, because I threw into it my criticism. So I got my son, who did not know anything about dentistry, to make the digests, and he simply quoted and stated what the writer had stated. That has not created any ill-feeling. If it has not done any good, it has not done any harm.

I believe that we will yet make the digests the leading feature of the journal. But it will not do for me to make them, because I would have every man mad that wrote a paper.

**Dr. Morrow's
Rule of
Three.**

I take three journals, and read each through every month, the *Dental Cosmos*, the *Digest*, and the *ITEMS OF INTEREST*, and I must say that I thoroughly enjoy them. * * * * I can read the three journals and can get just about all there is, because if there is anything special in any part of the country, it is sure to come out sooner or later in one of the three. The only trouble is that it is likely to come out about three times, once in each journal.

If *ITEMS OF INTEREST* in the past has had a distinctive feature it has been its short articles. These were not digests of, but abstracts from, more lengthy articles which had been published elsewhere. Dr. Ottofy's views on digests are correct, and may be amplified to advantage. The "busy dentist" says: "I cannot find time to read all the journals. I prefer to have some editor sift out the gold from the sand, and let me have nothing but the pure metal." This is a pretty theory, but how does it operate? Everything depends upon the editor's sieve. Some have sieves so fine that as much dirt as gold is retained, while others have the holes so large that nothing but gravel, and an occasional

nugget of gold, is saved. In short, given ten journals from which the digests or abstracts are to be culled, with ten men to make the selections, and unquestionably there will be ten totally different results. Thus the "busy dentist" who depends upon some other man to choose for him from current literature deceives himself. He does not get the matter which he himself would have chosen to read, but merely another man's choice, served a month or more later than its original publication. Consequently this "busy dentist," who is supposed to be the target at which editors must aim, is always about a month behind in receiving the newest and best things that come up in dental science. He is like the man who asked a friend to sit through and taste all the courses at a Thanksgiving dinner, and decide which were most palatable. Upon receiving the friend's report he went out to the cook to obtain the special dishes, which were served to him so cold that he lost faith in his friend as a judge of dining. Thus it would seem that the best service which a dental magazine could offer would be the prompt publication of the latest achievements of dental investigators, produced in such form that even your "busy dentist" might find time to partake of the literary feast at first hand.

**The Value
of Original
Matter.**

We believe that we have solved this much mooted problem; but, first, a word as to original articles. Dr. Crouse has pointed out, with pertinent truth, that papers read before the dental societies are commonly published under the title "Original Communications," whereas they are not, strictly speaking, original when published, having already been received by all who were present when read. We have decided to divide *ITEMS OF INTEREST* into departments, which will appear whenever appropriate matter is at hand. The first of these, "Exclusive Contributions," will embrace strictly original articles, prepared especially for this journal. "Society Papers" will furnish a suitable place for such papers as have been already read, and "Society Discussions" will contain the opinions of those present at the meetings.

**Our Own
Solution of
the Problem.**

Now we must explain more fully our solution of the problem of serving long articles, while that "busy dentist" is eyeing us askance. In the first place, many long articles are long because the subject cannot be properly treated within a brief space. Such articles lose value in the hands or through the scissors of the editor, who is limited by the rule of brevity. An illustration will best bring out this point. The editor of *Welch's Monthly*

might be considered as a type of the "brevity editor." Dr. S. G. Perry read a paper before the New York State Society last Spring, which was classical in matter and mode of presentation. It was subsequently published in the *Cosmos*. When it met the eye of Dr. Welch, scissors in hand, how he must have been puzzled in his endeavor to decide where to cut. Finally, in desperation, we can imagine him snip, snip, snipping, until Dr. Perry's article lay before him in seven pieces. What had our brevity editor accomplished? He had merely divided a good article, and, finally recognizing this, he sent all of the pieces to the printer, and in the November number we find Dr. Perry's article in seven places. This satisfies that "busy dentist" who only has time to read half a page at a time, but it is a great annoyance to those others who would have better enjoyed the article, reading it consecutively, rather than to find it dismembered and sandwiched between a lot of extraneous matter.

**The
Happy
Medium.**

It has seemed a good plan to compromise between this busy dentist, with his limited time for literature, and the students who are seeking for the latest ideas in the best form. Our method, therefore, will be to publish original and lengthy matter, with a series of side headings, which shall indicate at a glance just what is touched upon by the authors. Thus the "busy dentist" may run over his journal in a few minutes reading what he fancies, without regard to the surrounding matter, while the student may sit down to the full enjoyment of the whole article, served complete.

**Treatment
of Society
Papers**

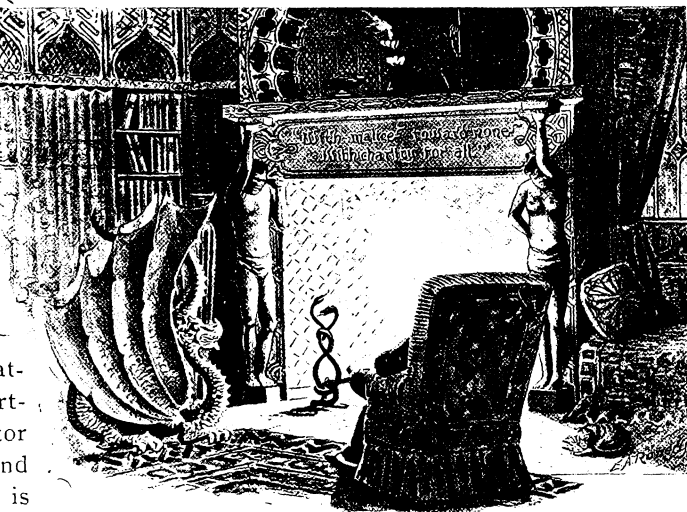
A paper read before a society almost of necessity has as introductory, which is in place when read, but which, as much as anything, deters men from reading the article in print. We announce now that, without favor or exception, all such communications which we use, will begin where the introductory passages leave off. When the author reaches his subject, we will begin to set type. This rule will be inelastic.



The Editor's Corner.

This is the editor's corner. This is the special feature, of which the editor has long dreamed, and now that the dream is about to be realized it

grows almost into a nightmare. Why? Chiefly because the editor is in a quandary as to the best method of expressing himself, in this his very own corner of the journal. Not that he does not know what to say, but rather that he finds it troublesome to decide how best to say it.



The Editor's Alter Ego.

In days of old, as the song has it, there existed a well defined though apparently indefensible antipathy to the personal pronoun, first person singular, to wit, the ninth letter in the alphabet, the letter I. A writer was tabooed, frowned upon, scoffed at, if he dared to use that sacred symbol when writing of himself. Mind you, no objection was ever raised to his alluding to his own work, his own thoughts, or to his very self; only, and the rule was rigid, he must not use the capital letter I, for that would be a capital offense against the ethics of the scribes. Other words were at his option. For example, he might adopt any of the following modes, as: "The writer believes," "The author has observed," "The essayist contends," or, if perchance he were an editor, "The editor desires to have it understood," and some few other, but quite similar phrases. After a time these editor chaps, upon occasion found it necessary to speak not alone for themselves, but inclusively for themselves combined with the proprietors or publishers of their journals.

This tentative recognition of the existence of persons other than themselves, entitled to a voice in affairs, marked the dawn of a new era; the personal pronoun, first person plural came into vogue. Thenceforward editors adopted such phrases as "We have decided that in future this magazine shall contain sixteen pages more than heretofore," "Our new policy will tend to the

elevation of professional journalism;" and such like. Observe that in the above sentences the pronoun expressed, however vaguely, a plurality, which was real. The word stood for proprietor and editor. From this point a curious but natural evolutionary process obtained. Give an editor free rein, and he will soon forget the existence of the proprietor, or else merge his existence into his own. Thus, by degrees the use of the plural pronoun, in the beginning strictly representing the co-partnership of editor and proprietor, became a fixed habit regardless of the precise context, the proprietor being slowly but surely eliminated, first from the mind of the editor, and finally from the meaning of his written words, until at length the latter day editor, bluntly speaks of himself as though he were two persons, and calls himself "we."

Though a time-honored custom, this is nevertheless incorrect. It is proper to say: "We will make a specialty of high-class illustrations," but it is absurd to say "We had a most interesting case in our office this week."

This is the quandary in which the editor of *ITEMS OF INTEREST* finds himself. If it should be necessary to write the above, he would like to make no bones about it, but just write "I had a most interesting case in my office this week." But just see, the very first letter is an "I," a capital "I" at that. A clear breach of the old rule. True, in recent years he can find several who have the courage to write "I" when "I" is meant. Mr Howells, for example, who has recently taken the control of a department in the *Atlantic*. The editor despises the expression "The writer;" he cannot believe it to be good grammar to call himself "we," yet he hesitates about beginning this corner, with a capital "I."

So I have begun it for him. Who am I? Why I am the editor's *alter ego*; his other self; the confidant of his innermost thoughts; an intangible entity though an actual existence. Being intangible, I am not subservient to feelings; frowns are invisible to me, and scoffing gibes would not reach me because I have no ears. Consequently, while the editor is lost in thought over this predicament, dreaming away in his comfortable corner, I am doing his work for him and furnishing copy. Being his *alter ego*, I can write as well as he; yet, if errors creep in, errors of fact or of judgment, do not blame the editor; just aim your little growl at his *alter ego*.

Omission of the Question Box.

It will be noticed by some that the "Question Box" has been abandoned with this issue, and it will be best to frankly explain the reason. About six years ago a dental journal was born, blossomed, and died, all within a twelve month. At the outset it promised to be—but as it died, with the promises only half fulfilled, owing to lack of funds, it is futile to say more. The only fact worthy of note is that in this short-lived publication, the *Dental Mirror*, there appeared a novel department called "Comparative

Methods." The editor formulated a set of queries each month, based upon some disputed method of operative procedure, sending the same to forty or fifty of the most widely known dentists, subsequently compiling such answers as were received, and publishing them in connection with the original query. Almost immediately Dr. Welsh, who was then editor of *ITEMS OF INTEREST* paid the *Dental Mirror* the compliment of imitation, which by the way is almost never appreciated by the editor whose unique ideas are thus cribbed. Thus originated the "Question Box," which, however, though similar, was very far from being the same. In fact it was fundamentally different. In "Comparative Methods" imaginary cases were cited, in order to excite a discussion, which would be instructive by bringing to light methods, which, having proven successful in practice, were all worthy of study, though different in detail. The "Question Box" on the contrary, invited men to seek assistance in individual cases occurring in private practice.

In private correspondence with a prominent writer on dental topics, this subject was approached, and as his views are most pertinent they are here quoted:

"I am of the opinion that this 'query' business, and 'question and answer' departments are more deleterious than beneficial, because men are thus led to depend upon the skill of others instead of developing their own abilities by study and observation. I should certainly not encourage the practice of dentists depending upon a dental journal to help them out when they chance to meet with a case with which they cannot cope. There are many men throughout the country to whom such cases should be referred."

This last is an excellent suggestion. Dentistry is rapidly becoming specialized. We have in all large cities men who, while following general practice, yet take up a specialty to which they devote especial study, and when an abnormal condition presents in the practice of a man who does not feel competent himself to care for the patient, two courses are open to him. He should first correspond with, or send the patient to, some prominent specialist for an opinion. If upon receipt of the opinion and advice, he feels that he can discharge his whole duty to his patient by treating the case himself, it is proper for him to do so. If not he should frankly admit that it is beyond his knowledge and experience, and he should refer the patient to the specialist for treatment.

Whilst abandoning the "Question Box," it is not intended that our readers should be restrained from addressing puzzling questions to us for solution, or advice. Such questions may be sent, first, by those who will be satisfied to find a reply in "The Editor's Corner:" or, secondly, by those who desire the opinion of some specified man of prominence, yet feel a hesitancy about addressing the great man direct. These communications will be forwarded with the request that opinions be sent to the writers.

**Department
of
Orthodontia.**

This department furnishes something of a novelty in dental journalism. A number of gentlemen, who have had years of experience in the study and correction of irregularities, have courteously agreed to contribute monthly to this department. The plan is as follows: One of the contributors forwards a set of models, and the history of completed case, selected from his practice. The models of the original condition are duplicated in our laboratory, and a set forwarded to each of the others, who expresses his views upon the condition, and advocates a method of procedure. These are published in order, what was actually accomplished by the dentist who cared for the patient appearing at the end of the article. It is manifest that this department will not only contain many suggestions of practical value, but will become the repository of recorded facts which will be permanent additions to the literature of the subject. The department however will not be exclusively devoted to "Theory versus Practice." All dentists are invited to send histories and models of unique cases, which will be utilized and freely illustrated if of sufficient interest.

**The
Alter Ego
Again.**

I declare I do not know how the editor would get along without me. When I wrote the opening paragraph, I thought I would help him over the fence as it were, and place him in a roadway where he would have straight walking. Yet here he has actually stopped work, and left unsaid something which I know he wanted to say. So I must come to his aid once more and say it for him. When he first took this journal he received between three and four hundred letters of congratulation. In many of them there were suggestions and advice as to the future policy. All of this in the aggregate, was of value as being an expression from those of the subscribers who seemed to take an interest in the future of the magazine, and he was grateful for the letters. Now that a new policy has been outlined, the editor feels that he would like to hear from the subscribers once more. Do they like the new journal? Are the new departments to become popular? Do they like the side headings, the illustrated articles, the departments of 'Orthodontia,' 'Incidents of Office Practice,' and 'Office and Laboratory?' Especially do they approve of 'The Editor's Corner,' which is to be devoted to dental news items, comments on current events, and communications from dentists, all served in a chatty form? In brief, do the subscribers consider it a good idea to make the journal more scientific, whilst at the same time having it more breezy, more like the great literary monthlies?

Letters expressing candid opinions on the above points will be gratefully received by the editor, I make bold to state, even though he has left it for his *alter ego* to voice his thoughts.

INCIDENTS OF OFFICE PRACTICE

A Problem in Prosthesis.

By DR. J. ALLEN OSMUN, Newark, N. J.

A few years ago I had an interesting case presented for treatment. It was for a full upper denture, with the following difficulties to overcome. The patient had worn a full plate for many years, with only six lower front teeth to antagonize it. The usual result followed,—the front alveolus was very badly absorbed, while the condyles were hard, and in this case very large. The patient told me that at first she had had no difficulty in keeping the plate in place, but as the years went by she was compelled to have new dentures made, and each time at shorter intervals, until to use her expression she had a “peck of discarded sets” on hand. I found all of the front part of the mouth soft and flabby, excessively so, while as stated before, the condyles were very hard. To fit a plate so that it would be retained was a difficult matter, but I proceeded on these lines and can report a perfect success. I first made and fitted a partial lower plate. Just here I want to emphasize the importance of always having a full complement of teeth in the lower jaw, when upper dentures are to be worn. There should be either a complete set of the natural ones or the missing teeth should be replaced by bridge work or a partial denture. Having proceeded so far the upper jaw was still an unsolved problem. I tried to get an impression which would be satisfactory, but failed. It would have been as easy to get a plaster impression of the uvula.

Solved by	I decided to cut away all the soft tissue, which I did by
Surgical	the use of a pair of curved scissors. The wound healed
Interference.	well in a few days, and then I had a good hard tissue to
	work upon. I have followed this practice in a number of
	cases since, and always with exceedingly gratifying success.

This plate was worn for twelve years successfully. As I am in the mood of writing out “experiences” I will relate another case which was the extreme opposite of the one just related. It was for a full upper denture, but instead of soft, I had to contend with exceedingly tough tissue. It presented as a thin projecting rim, so that if gum sections were used they would protrude the

lips and produce a frightful appearance, whilst if plain teeth were set against the gum, the lips would fall in above this thin rim, so as to cause this middle aged person to appear to be about eighty years of age. With plain teeth placed against the gum and a rubber rim above to fill out the lips, we found that in smiling or talking, the lips would be raised so that the rubber would show, and in each of these different plans I found it impossible to set the teeth back far enough to occlude with the lower incisors. Finally I determined to remove this projecting rim. Placing the patient under the influence of gas, with a pair of wedge cutters I excised all the tissue not needed. In about three weeks an impression was taken and a denture made which afforded satisfaction to patient and operator, and is now worn with great comfort,

An Experience in Bleaching.

By DR. FRANK FRENCH, Rochester, N. Y.

Mr. P., age forty-six, came to me in the spring of '95 to have his teeth put in order. The right superior central had been dead for fifteen years; was much discolored; in fact, might be called black, and very unsightly. Discharge through fistulous opening most of the time, and of course absorption of purulent matter by tubuli. Tooth quite loose, and some absorption of alveolus on the labial surface.

Dr. French meets a Black Tooth. I regarded the case as almost hopeless on account of the bad color and length of time, and told my patient so. The color was the worst I ever saw, and in thirty years of practice I have seen some bad cases. I told him we could try, but my faith was very small. I did try, and very faithfully, to bleach it. After getting the tooth in as healthy a condition as possible, I tried our old remedies, Labarague's solution, chloride of lime, tincture of iodine, and peroxide of sodium, but with very little effect. I have several times had very good results with peroxide of sodium, but no perceptible change could be observed from its use in this case. I also tried pyrozone five per cent. and ten per cent. solutions, but no change. I had read of Dr. Meeker's experience with caustic pyrozone twenty-five per cent., in bleaching, and resolved to try it. I adjusted the dam very carefully, so there could be no leakage, for it is CAUSTIC spelled with capital letters. I had previously filled the root from the apex one-half to one-third its length, permanently, so there could be no leakage through the foramen. On top of this I packed a small pellet of gutta-percha, so as to protect the filling from the action of the pyrozone, and if it did act on the gutter-percha, it could be eas-

**Tries Pyrozone
Applied with
Hickory Stick.**

ily removed. I then prepared some slivers of compressed hickory, so that there could be no action of pyrozone upon metal, winding the end with a little cotton. Dipped the cotton into the pyrozone and placed it in the pulp chamber, withdrawing the stick, and allowing the cotton to remain for one or two minutes, removed it, and with hot air syringe dried out the tooth, then took another sliver of wood (never using the same one twice) and applied in the same way using air syringe very thoroughly.

I continued this treatment for nearly three hours, and although there was some change, I must confess I was bitterly disappointed, or I had hoped for a great one. I told my patient that I was disappointed, but that I wished to try again, so I filled the cavity temporarily, and making another appointment, dismissed him. Four days later he came to meet his appointment, and on my first glance into his mouth my surprise was so great that I could hardly speak. The tooth was bleached very nearly the color of the adjoining ones. He said it began to change on the same day upon which I had bleached it, and continued to do so for twenty-four hours. The change was marvelous, wonderful! I applied pyrozone as before, and after half an hour the tooth was as white as desirable. I then filled the cavity with pure oxy-chloride of zinc, finishing with gold, and to-day the difference is not perceptible, unless one's attention is called to it. I am more than pleased with it, and the results so far are very gratifying.

Still I would caution all using it to do so with great care lest unpleasant results should follow. It should be borne in mind that the great change in color did not take place until some hours after the application of the pyrozone. The cavity should be thoroughly washed with a saturated solution of bi-carbonate of soda, after using the pyrozone.

Infantile Scorbutus.

BY JOSEPH BOYLSTON, D. D. S., Portsmouth, N. H.

Knowing that infantile scorbutus is a disease which has been but little discussed among dentists, it is my desire to report a case which, being my own child, I have studied more or less carefully. I will give a history of the child's life and condition up to the time when the disease first showed itself.

She was, like many babies, subject to severe colic during the first few weeks of her life, and fresh cow's milk prepared with Fairchild & Lorster's peptogenic milk powder seemed to be the only thing which she could take with no evil results. I would say, for the benefit of those who have had no experience with this preparation, that it is a powder composed of sugar of milk, extract of pancreas, and bicarbonate of soda. The fresh milk was brought to

us in sealed jars, sometimes reaching us while still warm from the cow, and was immediately prepared in the following manner, as directed on the bottle of powder. To half-pint measure of milk was added one-quarter pint of barley water, four tablespoonfuls of cream, and one measure of the powder. The whole was then stirred, put into a tightly stoppered sterilized bottle and placed in a kettle of water at 115° and bathed for twenty minutes. It was then poured into a sterilized granite-ware dish and quickly brought to just the point of boiling, then taken off and poured into smaller bottles, each containing enough for one feeding and stoppered with a plug of absorbent cotton.

The child thrived on this until she was eight and one-

Description of half months old, when she began to weaken and grow
First Symptoms of peevish, a slight purplish swelling appeared in the gums
Scorbutus. around one of the five teeth then erupted. The swelling rapidly spread to the gums around the other teeth, and

her mother insisted that the child had bruised its own gums by some fall or by biting. At about this time we noticed dark spots giving a sort of mottled appearance to the flesh over the shoulder joints, followed very soon by the same appearance about the thighs and legs. By this time the baby refused to stand or put her feet in any position which would bring the slightest pressure on her hips; she objected to being handled, or even moved, or bathed, and her cries of a few days previous, had become an almost constant moan. The knees were drawn up to her body, and any attempt to straighten her legs, caused her to scream with pain. I consulted a number of physicians, none of whom knew what was the trouble or could suggest a remedy.

I remembered seeing the report of a discussion started by Dr. Rheinf in which a condition was described which closely resembled the case in hand. I re-read the discussion and also the paper by Dr. Kirk referred to in the discussion, and went to work on the line of treatment advised by them. In order to make assurance doubly sure, I again called in a physician, gave him the articles to read, and he agreed with me in the diagnosis.

The Treatment The child was given fresh milk without the powder,
which Affected the juice of an orange each day, and juice of beef obtained
a Cure. by slight broiling and expressed with an ordinary lemon squeezer. The beef was alternated with a soft boiled egg.

In two days a decided improvement was noticeable and in three weeks she had apparently entirely recovered.

I would say that during the continuance of the disease all development of the teeth seemed to stop; but there was no breaking down of the enamel, nor loosening of the teeth, and just as soon as she recovered, the development was resumed and four teeth were simultaneously erupted, with almost no irritation.

There seemed to be no derangement of the bowels except perhaps a very slight tendency to constipation.

Having called attention to this disease, which seems to be on the increase, as artificial foods are being more and more substituted for mother's milk, and particularly among the better and more intelligent class of people who try to give their babies the most careful and scientific treatment, I must also add that I am unable to say just where this food lacked the constituents essential to the child's health, but there was a lack somewhere, whether in the powder itself, its action on the milk, in the method of preparation, or in the changed condition of the child in its development.

Crowning Deciduous Teeth.

BY DR. H. M. POULSON, Troy, N. Y.

Two years ago my little boy, aged three years, had excellent teeth, with the exception of the four superior incisors, which were very much decayed. I had tried filling to no purpose. I knew that crowning would preserve them. With fear and trembling I approached the work.

There was nothing in the records of dental progress to encourage me. But I had an ambition to preserve those teeth for the child's present comfort and future welfare, and did not wish to be humiliated by their loss.

With these motives urging me to action, I resolved on crowns. There was a mountain of fear to be removed. This accomplished, I was on my good behavior, lest by some overt act I should forfeit the confidence gained. I resorted to kindergarten tactics; we made play out of work. I soon had a plaster impression of the teeth to be crowned, and he considered it rare sport. I impinged upon his gums in fitting the crowns, but it was a part of the game and did not occasion any complaint. When wanted he always came bounding into the chair, head back and mouth open. He always seemed to be in close proximity when wanted, and like "Mary's lamb," he lingered near until our "play" was done.

The teeth to be crowned were all decayed on the approximal surfaces, and there was apparently a disintegration of the whole tooth substance, commencing at the gum margins.

Method of Procedure Described.	I prepared them for an impression by removing all
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Method of Procedure Described.	decay by the use of excavators and scaling instruments, extending my work well under the free margins of the gums. I then filled and contoured the teeth, as well as could be with oxy-phosphate. As soon as the cement was sufficiently hardened I took an impression with quick setting plaster, from which I produced a model with Mellott's metal.
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I prepared this model by trimming it around the necks of the teeth so that when the crowns were formed they would be longer than the original teeth, and so extend well up under the free gum margins.

I next proceeded to shape my crowns over the models so prepared, using for the purpose a 20K gold plate No. 31 B & S wire gauge thickness.

Before finishing, I adjusted the crowns in the mouth to verify the correctness of the prepared models, as I did not resort to wire dentimeter to measure the circumference of the necks, relying upon the eye assisted by the contour of the teeth.

I recommend very thin plate for this work for the reason that a heavier plate would by its thickness enlarge the size of the teeth, disproportionate to the associated teeth, and possibly cause malocclusion with the lower teeth.

I adjusted the crowns in the usual way securing them with oxy-phosphate mixed to a thick creamy consistence.

During the progress of the work I had thought to resort to porcelain facings, but abandoned the idea as impractical, fearing that the facings, even though very thin would enlarge the crowns to a disproportionate size. Besides there was the danger of chipping this frail enamel, which would leave the crowns in a much worse condition in appearance than if we had not attempted the work.

I felt that if they would prove to be lasting, I had achieved a little triumph. You may rightly infer that there was but little of torture in the whole procedure. The crowns were a decided improvement to his features, and, being conspicuous, naturally attracted much attention.

But oh! the comments. They shook my faith in object lessons for instructing older heads. "How beautiful!"

His Friends "How could you be so cruel!" "How did he ever stand

are very it?" "It is plain to be seen that your papa is a dentist."

Unappreciative.

Such and many other similar exclamations could be heard, which seemed to express, or imply, that I was both cruel and extravagant. The utility and lasting benefit to the child was seldom a subject of remark. "A boomerang," thought I, and I wished that I might keep those crowns from the public gaze. I was proud of them, but I felt that as an object lesson those crowns were a failure.

But I have made the best of it, I embrace every opportunity to relieve myself of a little lecture on the supreme importance of caring for the teeth in childhood, wherein I explain, that I was not cruel but humane; that I was not extravagant, but took the frugal "stitch in time" which preserved the teeth of my darling for present comfort and future usefulness.



Dry Sockets.

By DR. J. T. CRAWFORD, Nashville, Tenn.

I would like to call attention to a peculiar condition which I have called *dry sockets*, not having any other name for the condition. After the extraction of a certain tooth, the socket remained open and dry for twelve months. I recently had another case, a left lower third molar. The tooth was removed with great difficulty. There was no bleeding from the socket, and the patient suffered more or less pain after the extraction. Complaining of not feeling very well, I suggested that she go in the adjoining room and lie down and rest awhile. She sent for her physician, who gave her some stimulant, and feeling better she went home. She suffered very much that night, and saw her physician again. Still there had not been any bleeding from the socket which remained entirely open. He gave her a strong opiate, and advised her, if still suffering, to go to me for treatment. Late the next evening she came in. The jaw was somewhat sore and the wound clean. That night she had severe paroxysms of pain, and her husband reported to me that she was suffering very much. The first permanent molar was a dead tooth, on which she had worn a crown for seven or eight years, the second molar being also in position. That evening when she came in she was impressed with the idea that the pain was in the crowned molar. I examined it thoroughly and was convinced that this was not the case. The socket of the extracted tooth was still open. I washed it out well with warm water and packed it with iodoform gauze. She was comparatively comfortable that night and slept some. When she came to me the next day, I removed the gauze, and found that it came out perfectly clean and dry. There was absolutely no exudation in the socket. It continued that way for seven days longer. She was in constant pain, suffering from earache also, even the scalp was very sore. I concluded to use Dr. Savage's remedy for inflammation of the internal ear. He puts a drop of chloroform on cotton, dips it in sweet oil, and passes it into the ear. (More recently Dr. Savage mixes the sweet oil and chloroform.) I found I had no sweet oil, and so used oil of cinnamon with a tampon over it. She passed a comparatively comfortable night, but the next day was worse again, and still

thought it was the first molar. So I slit the crown and took it off. I found the pulp-chamber filled with gutta-percha and the crown set with cement. The cement had washed out and decay had begun. I cleaned it out and effected an entrance into the back root and partially into the front canals, when she said she felt better. I renewed the dressing of chloroform and sweet oil, with a tampon over it, in the socket which was still dry. I continued this for a week, nothing giving any relief but the chloroform and sweet oil. She said she had never experienced such severe pain, which affected the whole side of the face, head and ear. There was no blood, no suppuration, no granulation, but a perfectly dry, clean socket. I have seen a number of such cases, to which I give the name "dry socket." They certainly give much trouble.

Cosmos.

Dental Fees.

By DR. WILLIAM JARVIE, Brooklyn, N. Y.

The most uncomfortable feature of my professional experience is having to take into consideration the question of dollars and cents at all, and having to fix a money value on my services. If I am doing anything that is very engrossing, I do not want to think of the fee, if I can help it. Let me cite two cases. I have had recently two remarkable cases of erosion,—the worst I have ever seen. The operations were tedious to the operator and to the patient. Some of the teeth were cut through two-thirds of the entire thickness, and I filled them with gold. One case involved twenty teeth, ten teeth in the upper and the same number in the lower jaw; and the other case involved twenty-four teeth, from first molar to first molar in each jaw. Both the gentlemen in whose mouths this occurred were men of wealth, but commercial men. They were accustomed to place money values on everything. Before commencing the operations nothing was said about the amount of money to be paid. When I was half through, one gentleman said, "How large a bill will you have against me?" I said, "I am sure I do not know. I have not given it a thought, but it will not be more than you can pay." Two or three times afterward the amount of the bill seemed to worry him, and he spoke of it. I asked him not to mention it again. I said I wanted to do the best I could for him, and afterward we would talk about the bill. The experience in the other case was very similar. In both cases, when I was through they said, "Can you send me your bill to-day?" I did so, and in each case I received a check the following day with a very kind letter accompanying it. I charged what I thought was a fair compensation, and I was satisfied with the amount of the bill. I make

this digression simply because I want to say that if I felt every half-hour I was working for so much money I would get very little satisfaction in performing operations I was interested in. Some services rendered in an hour are infinitely more valuable to the patient than others that would occupy the same length of time.—*Cosmos*.

Cleft Palate Instruments.

It is exactly thirty years since Dr. Norman W. Kingsley, at that time in London, but now at 115 Madison Avenue, New York City, invented an artificial palate which was original in its conception, construction and application. This instrument not only replaced the missing portion of the palate, but being flexible, and under the muscular control of the adjacent parts, the function of normal articulation was also restored. Thus a defective natural organ of speech was made perfectly serviceable by an artificial one.

It has long since passed the period of experiment. It is a complete scientific and practical success. With it very many people who were deprived of entry into society and into business have been released from their bondage, and permitted to associate with their fellows upon complete equality.—*Brooklyn Medical Journal*.

How to Asepticize Mouth-Mirrors.

H. B. TILESTON.

To keep any kind of a mouth-mirror reasonably aseptic I have a small vessel like a watch-crystal or other shallow dish on my operating case constantly filled with electrozone. After each patient, and frequently during the sitting of one patient, I dip the glass and such parts of the frame and handle as come in contact with the mouth, into this solution and wipe off thoroughly. Before doing so, however, I of course wash off any visible contamination with water. I use the full strength of the solution of electrozone, called dental meditrina. As a further precaution I keep in the drawer of my cabinet where my mirrors are, a slab of plaster of Paris and sand saturated with Formaldehyd, as recommended by Dr. Cassidy a few years ago.

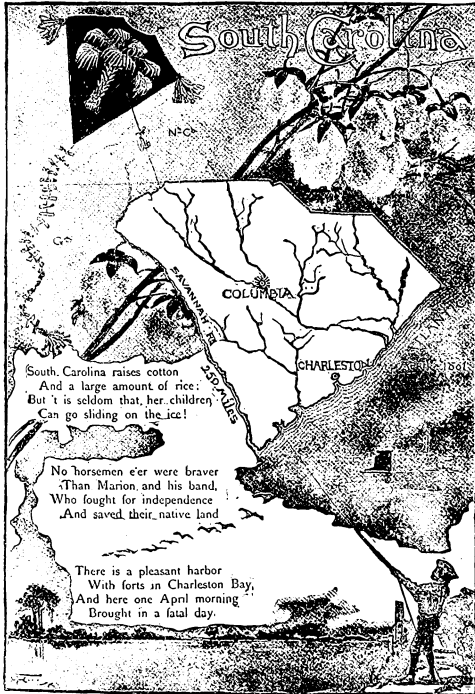
But in spite of all the precautions it is possible to adopt with a glass mirror, such as we are compelled to use for want of anything better, we may still be quite sure that it is *not* thoroughly aseptic at any time. Still it may be rendered at least innocuous by taking the precautions I have mentioned, and it is our duty to be religiously attentive to every detail of cleanliness that will tend to protect our patients who trust themselves to our care from anything septic or unclean.—*Dental Digest*.



Rhymes of The States.

BY GARRETT NEWKIRK, D.D.S.

With Drawings by Henry Fenn, after sketches by the Author. Ninety-six pages, cloth.
The Century Co., New York, publishers.



Within recent years several members of the dental profession have permitted their pens to stray into the field of general literature, and usually with flattering success. The book before me is as admirable in its execution as it is unique in conception. The author, having in mind the familiar verses, which begin "Thirty days hath September," and mindful of the great aid to memory which the refrain has been for thousands, conceived the idea of writing a series of rhymes, descriptive of the history and geography of the several States of the Union. Once at work upon his plan, by natural evolution it was elaborated to include illustrations in such form as would tend to fix in the mind of the child the topography and chief features of the States, to each of which a single

page is devoted for such a picture as is herewith reproduced through the courtesy of the publishers.

In addition to the verses, which most fittingly characterize the State, it may be noted that there is an outline map, together with an object which it resembles. Who can look at the picture and forget that South Carolina re-

sembles a kite in shape? Fort Sumter reminds us of the initiatory step taken by this State in precipitating the late rebellion, and thus aptly emphasizes in the mind the most prominent incident in the State's history, while the picturesque bunch of cotton bolls recalls the fact that when at peace the inhabitants are helping to clothe the world. South Carolina is known as the Palmetto State, and this is well recorded as a decorative feature of the flying kite.

This page, taken at random explains better than words how well the author has carried out his scheme, and is in itself no better than the others, in all of which the picturing and the verses are equally adequate.

The author is to be congratulated upon the thoroughness with which he has effected his purpose; for whilst at first it may seem but a pastime to produce such a work, a closer examination shows that a considerable amount of research, or else very extensive knowledge of the local peculiarities of the States, was requisite to the result. The publishers have ably seconded the author's efforts and have manufactured the book in their best style.

R. O.

Practical Dental Metallurgy, a Text and Reference Book for Students and Practitioners of Dentistry.

BY JOSEPH DUPUY HODGEN, D.D S.

Assistant in the Chair of Dental Chemistry and Metallurgy, University of California College of Dentistry; late Editor of Pacific Coast "Dentist." San Francisco, The Hicks Judd Co., Publishers, 1896.

This small book of 314 pages shows an unusual amount of painstaking preparation, which will undoubtedly result in its being adopted as a standard textbook by the National Association of Dental Faculties. The author is to be highly commended for the conciseness and clearness of his language, as well as for the manner in which he has arranged his text, it being very easy to find any desired subject. There is added to the book, a very valuable index which enables a student interested in a particular subject to refer readily to the bibliography. The book is up to date in all the latest metallurgical discoveries. In places, the author has departed slightly into the arts, and given information which can only be of great value. A considerable portion of the work is devoted to the consideration of amalgam. The views therein expressed are open to criticism. The author will find very few dentists who will agree that amalgam possesses "superior qualities over gold in saving teeth," for the opposite is unquestionably the view held to-day by the most conscientious operators. In the same way he gives copper amalgam a far better reputation for durability than it deserves. He clings to the old view that oxidation

improves the condition of alloys for the purpose of mixing with Hg, in order to form the amalgam, and in furtherance of this antiquated theory, advocates the old method of mixing in the hand without any exact knowledge of the amount by weight, either of the alloy or of the mercury. Great injustice has been done to the saving quality of amalgam fillings through this empirical method of mixing, and lack of attention to a scientific method of inserting the same in the past, for amalgam fillings in many cases can be inserted so that they will permanently preserve the teeth. To accomplish this, in contradiction to the views of the author, it is essential that the filings, or shavings of the alloy, should have been made so recently that it will have been impossible for oxidation to have commenced, and the amount of mercury and alloy used in a case should be accurately known, so that the operator can introduce the filling in a scientific manner. It is always essential that there should be an excess of mercury in the amalgam, in order to insert the filling properly; on the other hand the amount of this excess should be well understood by the operator, so that he can take the proper means either to remove it, or to form a superficial gold alloy at the completion of the filling. The latter method is one that the reviewer suggests as being both scientific and proper, and one which clinical experience has demonstrated as leaving the filling with the very best finish. Aside from these few criticisms, the book is to be heartily commended to practitioners.

The American Text-Book of Prosthetic Dentistry in Contributions by Eminent Authorities.

EDITED BY CHARLES J. ESSIG, M.D., D.D.S.

Professor of Mechanical Dentistry and Metallurgy, Department of Dentistry, University of Pennsylvania, Philadelphia. Illustrated with Nine Hundred and Eighty Engravings. Philadelphia and New York: Lea Brothers & Co., publishers, 1896.

The appearance of this magnificent work, marks an important era in dental literature and in dental art, elevating as it does the mechanical side of dentistry to the same scientific plane which has been reached in the operative. It has been too much the custom to decry the mechanical branches of dentistry, and to place them on a sphere inferior to the operative department.

Too much credit cannot be given to Professor Charles J. Essig for the magnificent result which has been accomplished only through herculean effort. This volume will unquestionably take merited rank as the standard text-book on Prosthetic Dentistry. It is made up of separate contributions by the editor, Charles J. Essig, M.D., D.D.S.; Henry H. Burchard, M.D., D.D.S.;

W. W. Evans, D.D.S. ; Grant Molyneaux, D.D.S. ; C. L. Goddard, A.M., D.D.S. ; Rodrigues Ottolengui, M.D.S. ; Ambler Tees, D.D.S. ; and Altor Howard Thompson, D.D.S.

No one else could have been selected, so well fitted by long years of experience as Professor Essig for the editing of such a work. He has labored unceasingly to place this special department of dentistry on the footing which it now must certainly attain through the publication of this volume.

The several contributors have been chosen with wonderful discrimination for the chapters which they have written, and of which we will speak in detail.

One criticism of a book of this character as a text-book might be, that several authors have found it necessary to describe different methods of accomplishing the same result. This implies an ability of discrimination on the part of the student, which if properly made is sure to produce a successful practitioner; at the same time it would have been far better if some of the writers had presented in more positive statements their own methods of practice.

The publishers are to be congratulated upon the magnificent and pains-taking manner in which the work is presented. The illustrations are especially worthy of note, far surpassing anything that has heretofore been seen in a work of this character.

It is unfortunate, that in the book which otherwise is so admirably produced, sufficient care was not expended upon the index, to make it more accurate and more complete. In a work of so voluminous a nature, covering such a variety of subjects, a topical index of the most complete kind, is absolutely essential, in order to render the book thoroughly useful as a work of reference.

<p>Professor C. J. Essig's Chapters.</p>	<p>tory, its equipments and arrangements. The student will find herein the most minute and detailed instructions, for constructing the various articles of furniture required in a laboratory proper, as well as the different instruments</p>
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and tools that are therein used, with the most explicit explanations of how each tool should be used. There is scarcely an article of furniture or a useful tool which is not well illustrated.

In the chapter on metallurgy, Dr. Essig is especially at home, as an old writer and authority on this subject. No criticism can be made in reference to the scientific facts laid down therein.

In speaking of molding and carving porcelain teeth, the editor has entered very carefully into the different formulæ of porcelain teeth, as well as the history of the same. There are very complete illustrations of the brass molds used for their construction, and also detailed descriptions of the various continuous gum furnaces.

The chapter on English tube teeth, while not occupying a great amount of

space, will be found both novel and instructive to the average American practitioner.

Perhaps the most comprehensive and voluminous chapter furnished by the editor-in-chief, is the one dealing with vulcanized rubber as a base for artificial teeth. He has evidently entered into the consideration of this material with what appears to be a deliberate attempt to champion its cause. While he undoubtedly will have the sympathy of a large majority of practicing dentists, in placing rubber plates on a seeming equality with those constructed upon a metallic base, and also belittling the cases of "rubber sore mouth," yet he will find opposed to these views that powerful minority of the better class of dentists.

Throughout all of Dr. Essig's chapters, he has displayed a faculty for presenting his subjects without allowing his own personality to enter therein. This is carried to such an extent that unfortunately the student loses the advantages of precept which might have been gained from a knowledge of the individual practice of this eminent writer.

In speaking of the manipulation of rubber, prior to vulcanization, he has omitted mention of the newer methods of packing rubber so as to avoid any surplus, or the possibility of air between the layers of rubber. In this chapter he details an expedient for people who are so sensitive as to object to substitution of porcelain teeth for their own, even on artificial plates. Their natural teeth having been extracted, he describes a very interesting method of attaching the crowns of the natural teeth, to the artificial plates. The query might perhaps be made; "Why should these teeth have been extracted?" No one after carefully studying this chapter should fail to master the art of manipulating rubber, as the directions are extremely explicit, including the repair of broken plates and the attachment of teeth by means of rubber to the various metallic plates.

In speaking of vacuum chambers, there is an implied condemnation of their use, which if made somewhat stronger might be of more value to the student.

Extensive illustrations and directions are given for the construction not only of numerous forms of regulating fixtures but also of interdental splints.

Perhaps the most important chapter which bears Dr. Essig's name, and yet one to which the average practitioner gives too little attention, is that entitled, "Hygienic Relations and Care of Artificial Teeth."

The subject is very generally neglected by most practitioners and the manner in which directions should be given to the patient for the necessary care that should be given to the patient for the necessary care that should be taken of artificial denture is both timely and important. Perhaps in no portion of his writings does the individuality of the author make itself more apparent. It is replete with valuable suggestions and criticisms. The condemnation of the great use made at the present day of "extensive immovable bridges" is

most commendable. On the other hand the writer's well known objections to the use of clasps, where they can possibly be avoided, is not shared by those who have made a study of developing the benefits of what may be termed the Bonwill method of clasping. The author dilates on the importance of a perfect-fitting clasp, and speaks of the danger resulting from an ill-fitting one. In the Bonwill method, it is absolutely essential that the clasp should not be perfect fitting, and yet it has been demonstrated in practice that it is far less productive of either abrasion or chemical disintegration of the tooth substance, than the carefully constructed and perfect fitting clasp. His caution against allowing the clasp to impinge close to the gum, is well taken but his fear of the ultimate loss of the tooth from disintegration, where the enamel has already begun to deteriorate, is groundless, if in these cases the portion of the tooth substance which the clasp is to hug, is excavated and thoroughly contoured with gold.

(To be continued.)

Correspondence.

**Dr. Flagg
to the
Stomatologists.**

Whenever I have found myself mistaken, it has always been a great satisfaction for me to acknowledge it; whenever I have felt that an apology from me was required, it has equally been a pleasure for me to make it.

I would therefore reply, in response to the communication from the Stomatological Club of San Francisco, that I was mistaken in referring to the short discussion of Dr. Younger's extended bacteriological paper as having taken place before that organization, and that I most heartily apologize for having erroneously done so.

Although I trust it is unnecessary, I yet desire to disclaim any personality in anything I ever say regarding professional matters in professional discussions, but it is well known that for the dental societies of California and New Jersey I have a vastly more than mere professional regard, and, had my remarks been *heard* instead of read, it would have been recognized that in a discussion pertaining to Oral Hygiene, and incorrectly remembering the discussion to which I referred as having been before the Stomatological Club, I would naturally antagonize it solely from its stomatological aspect.

By kindly inserting this in ITEMS OF INTEREST, you will give extended publication to an item of special interest to me, in doing which you will very much oblige,

Sincerely yours,

J. FOSTER FLAGG.

Plain Talks to Dentists.

NO. 4.

This issue of ITEMS OF INTEREST is being sent to every dentist in the United States.

The regular issue of ITEMS is now a little over twelve thousand copies per month. This we believe is double the circulation that has ever been achieved by any other dental publication.

The circulation has not come by accident.

Dentists have bought ITEMS because they found in it the kind of information they needed and desired.

There is no reason why every dentist in the United States should not be a subscriber to ITEMS OF INTEREST.

There are hundreds of reasons why every dentist should be a subscriber.

ITEMS costs one dollar a year. The dentist who desires to keep abreast of the progress of his profession could better afford to pay fifty dollars a year for it than be without it.

Aside from the interest and pleasure that he will take in reading the magazine, there is the practical, positive dollars and cents view to be taken of it.

Everything new in ideas, methods, instruments or appliances is discussed every month by practical, able men. ITEMS OF INTEREST is a sort of clearing house to which comes all of the best thoughts in the dental world. All of this rich material is sifted, sorted and redistributed through ITEMS OF INTEREST.

The magazine is published by the Consolidated Dental Mfg. Co., but it is by no means what is known as a "house-organ." Its reading pages are made for the dental profession, and not for the Consolidated Mfg. Co.

It is entirely free from bias in its editorial department. Any dentist who has a good thought, or who has an interesting experience to relate, will always find its pages open to him.

Any reputable advertiser, even the bitterest competitor of the Consolidated Dental Mfg. Co., may advertise in its pages at the regular advertising rates.

The Consolidated Dental Mfg. Co. is opposed to unfairness and extortion in business. It is unutterably opposed to trade combinations made for the purpose of maintaining and increasing prices. It believes in an honest, healthy competition.

It is able to hold its own without the help of any other concern on earth. It believes that every dealer in dental goods should possess this same ability or should go out of business.

There is no reason why a dentist should be compelled to pay more for a thing than the price for which that thing can be produced and delivered to him at a profit.

It is not much over a year ago that the Consolidated Dental Mfg. Co. began to sell the best porcelain teeth in the world at one dollar per set. This startling innovation has been followed by others equally as startling. There is hardly anything that a dentist uses that he cannot now buy for less money from the Consolidated than he can from any one else in America.

There is no question about the quality of the Consolidated goods. There can be no question about the quality, because everything that is sent out by the Consolidated, is sent with an absolute iron-clad "Money Back" guarantee.

We do not even ask that you shall demonstrate the fault that you find with our goods. We say to you simply and plainly and positively: if you are dissatisfied when you get the goods, send them back, and we will send you your money. We don't care whether you are right or wrong.

The proposition simply is: if you would rather have your money than our goods, we don't want you to keep the goods, and the money is waiting for you. We want you to know that you are safe in all your dealings with

us; that you are safe on quality, safe on price. We want our every word, and our every promise to have in your eyes, "the ring and gleam of gold."

Some dentists are slow to believe us because they have been so long deceived. They are slow to believe that it is possible that they are going to have "a square deal" from dental manufacturers.

Others, we have learned directly from themselves, have been slow to trade with us because they were in debt to other manufacturing concerns, who, if the dentist purchased our goods, would immediately "put on the screws." We want to say to every dentist of this kind, and say it emphatically, that just so long as he remains under the thumb of some manufacturer, just so long will he be in debt. He will never get his head out of water, he will never be his own man.

Many of the goods that he uses are sold by the Consolidated Dental Mfg. Co., at about one-half the price he is paying. If he will send us one-half of the money, and make a payment on his debt with the other half, he will soon be free and freedom is the first step towards prosperity.

We want from every dentist a subscription for *ITEMS OF INTEREST*. It is the handsomest dental magazine that has ever been published. It comes twelve times during the year. It costs one dollar per year.

When the dentist is ready to buy our dental goods, we are ready to sell them to him, and if, after he gets them, he doesn't want to keep them, he can have his money back without a word of argument, without any bother, with no trouble—by telegraph if he says so.

Consolidated Dental Mfg. Co.,

J. F. FRANTZ, President,

115 W. 42nd St., New York.

The King of Filling Materials!



THE STANDARD OF MERIT.



IN November, 1896, the entire plant, stock, secrets, formulas, and good will of the late R. S. WILLIAMS was purchased by the

Consolidated Dental Mfg. Co.

All of the employees of the late Mr. Williams are retained in their respective positions, and the manufacture of his specialties is being continued in the same careful manner that has made the reputation of the "STANDARD" Gold famous the world over.

Standard Gold * **Specialties** *

STANDARD GOLD FOIL.

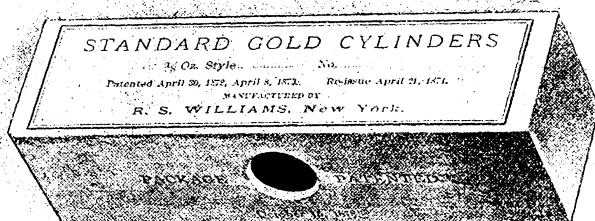
Put up **Cohesive** in Nos. 2, 3, 4, 5, 6, 10, 20, 30, 40, 60.

" " **Soft** " " 3, 4, 5, and 6.

" " **Corrugated** " 4, 5, 6, 10, 20, 30.

Prices $\frac{1}{8}$ oz. \$3.50. 1 oz. \$27.00.

STANDARD GOLD CYLINDERS.



Style A. (Improved.)



Numbers $\frac{1}{8}$, $\frac{1}{4}$, $\frac{3}{8}$, 1, $1\frac{1}{2}$, 2, 3, 6 and assorted.

Prices $\frac{1}{8}$ oz. \$4.00. $\frac{1}{4}$ oz. \$7.75. 1 oz. \$15.00. 2 oz. \$56.00. 5 oz. \$137.50.

Standard Gold Cylinders, Style A. (Short.)







Standard Gold Cylinders, Style A. (Long.)

Non-Tipping Gold Cylinders, Soft or Cohesive.

Standard Gold Cylinders, Style C.

Prices same as for style A. (Improved.)

STANDARD GOLD CYLINDERS, Style O.

Open Center.			Loose Rolled.			
Sizes :	O. A.	O. B.	O. C.	O. D.	O. E.	O. F.
						
Prices :	$\frac{1}{8}$ oz. \$3.75.	$\frac{1}{4}$ oz. \$7.35.	$\frac{1}{2}$ oz. \$14.50.	1 oz. \$28.50.	2 ozs. \$56.00.	5 ozs.. \$137.50

Consolidated Dental M'f'g Co.



STANDARD GOLD SPECIALTIES.



BURNISH GOLD CYLINDERS.

**Extra Soft Working Gold.
COHESIVE or SOFT.**

Numbers, $\frac{1}{8}$, $\frac{3}{4}$, 1, $1\frac{1}{2}$, 2, 3 and Assorted.

$\frac{1}{8}$ OZ., \$4.50.

$\frac{1}{2}$ OZ., \$17.00.

1 OZ., \$34.00.

2. OZS., \$66.00.

5 OZS., \$160.00.

Standard Folded Gold Foil.

Width, $\frac{3}{8}$ inch ; thickness, 50.....	$\frac{1}{8}$ oz., \$4.50
“ $\frac{1}{8}$ “ “ “ 60.....	
“ $\frac{3}{16}$ “ “ “ 80.....	

Standard Cohesive Electric Gold.

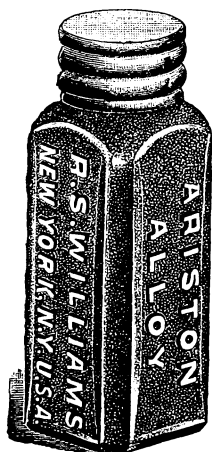
For Electric, Mallet, Hand Mallet and Hand Pluggers.....	$\frac{1}{8}$ oz., \$ 4.00
Thickness of folds, 30, 40, 60.....	$\frac{1}{4}$ “ 7.75
	$\frac{1}{2}$ “ 15.00
	1 “ 29.00
	2 “ lots at \$28.00 per oz.
	5 “ “ 27.50 “

Gold and Platinum Combination.

Shade 1, nearest gold color.	$\frac{1}{8}$ oz., \$4.00
“ 2, intermediate.	
“ 3, nearest Platinum color.	
Rolled, thickness, No. 60 } in each shade.....	
Folds, “ “ 30 }	

Iridium Platinum Gold.

Shade 2, only.	$\frac{1}{8}$ oz., \$4.00
Rolled, thickness, No. 60, only.....	



ARISTON ALLOY.

This Alloy for Amalgam is designed to have the best average of desirable qualities, and to be thoroughly reliable.

1st. It mixes well either in the hand or mortar, forming a smooth plastic. *Thorough mixing is very important.*

2d. The working quality is excellent, because this alloy is not injured by using enough mercury to produce **complete amalgamation**. Equal parts by weight of filings and mercury give the best results. There is no need to use the Amalgam made of this Alloy so dry that it crumbles and is troublesome to use in cavities difficult of access ; in fact it spreads better under the instrument and unites better when there is just enough mercury to make a plastic, cohesive ball but not so much mercury that it can be readily squeezed out by pressure between the thumb and fingers. When used too dry, the Amalgam is liable to bridge over like cohesive gold, leaving pit holes, which cause leakage.

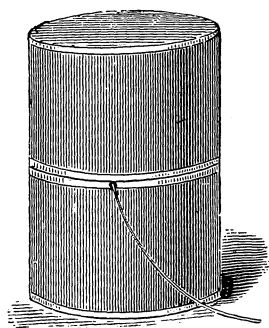
3d. The Amalgam sets well, making a hard filling with strong edges.

4th. When properly worked, it will compare favorably with any amalgams as regards shrinkage.

5th. The color is **very white**. It has stood well in the mouth, and there is no reason to think that it will not hold color as well as any amalgam can do.

1 oz., \$3.00 ; 2 ozs., \$5.50 ; 4 ozs., \$10.00.

CONSOLIDATED DENTAL M'F'G CO.



THE R. S. WILLIAMS DENTAL FLOSS

This special grade of Dental Floss has, from its superior quality, found extensive favor with the Profession. It is of a size especially adapted for dental uses, and excels in strength. . . .

Put up 24 yds. to the spool, } **WAXED, per doz., = \$2.00**
PLAIN, " " = 1.35

R. S. Williams' Gold Plate.

	PER DWT
24 karat (Pure Gold).....	\$1.20
22 " made from Pure Gold.....	1.15
20 " " " " ".....	1.05
18 " " " " ".....	.95
Coin.....	1.15
Clasp Plate, Gray color, tough and springy.....	1.05

R. S. Williams' Gold Wire.

	PER DWT.
20 karat, Round and Half Round.....	\$1.15
18 " " " " ".....	1.15
Clasp Wire " " " " ".....	1.15
Ligature Wire.....	1.40

R. S. Williams' Gold Solder.

	PER DWT.
Number 22, for use on 22 karat Plate.....	\$1.10
" 20, " " " 20 " ".....	1.00
" 18, " " " 18 " ".....	.90
" 16, { For use in cases where suf-.....	.85
" 14, { ficient heat cannot be used }.....	.75
" 12, { to flow the higher qualities. }.....	.70

GOLD-FACED PLATINUM.

Per dwt.....\$1.10

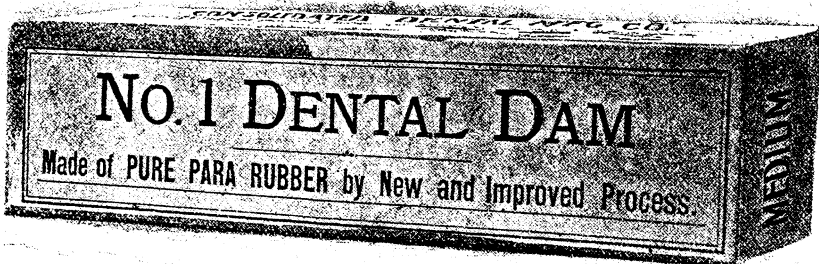
Gold-Faced Platinum, which is Pure Gold on one side and Pure Platinum on the other, equal parts, is useful for Crown and Bands, because it can be soldered without danger of melting, gives the exact color of fine gold, and can be filled inside with amalgam, which will not act on the Platinum

SPECIAL ALLOYS.

Non-Oxidizable Crown Gold is a new alloy which will not tarnish in annealing, and is richer in color than pure gold. It is nearly 24 karats in fineness, but contains a little alloy, which makes it just enough stiffer than pure gold, to retain its shape in working..... \$1.20

Anderson's Crown Metal has the gray color of clasp plate, which makes it less conspicuous than ordinary crown gold, is strong and stiff enough so it can be used very thin..... \$1.05

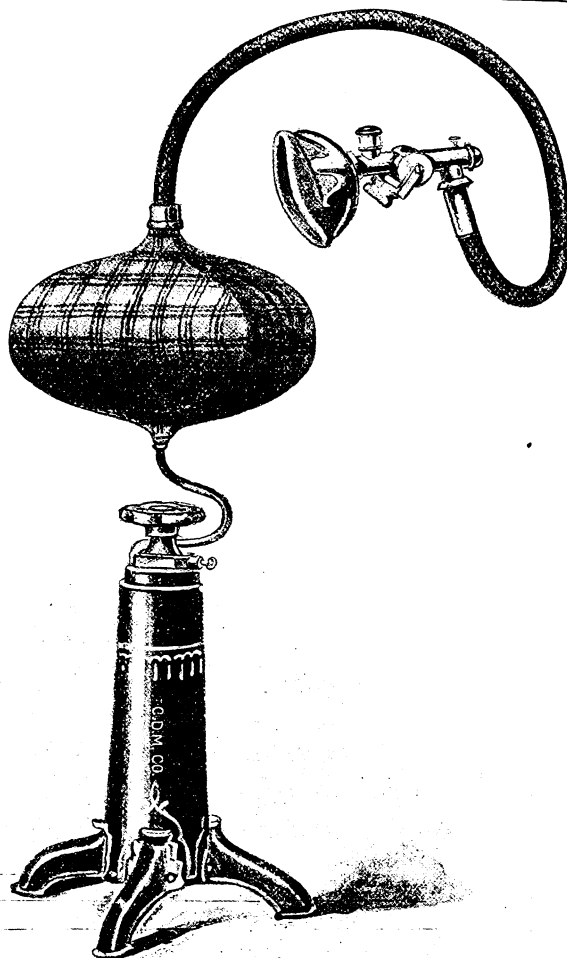
Consolidated Dental Mfg. Co



PUT UP IN DOLLAR ROLLS.

A good deal has been said about our RUBBER DAM, but the story is not yet half-told. We strongly urged every dentist to send us order for a trial roll, believing that soon as he had once used it he would have no other, at any price. The result is beyond all anticipations. Orders are repeated from every quarter. Our No. 1 Dam has already attained an enviable reputation. Its toughness is remarkable. Put up in dollar rolls, thin, medium or thick.

1332 square inches,	Thin Dam, in a roll.
936 "	Medium Dam, in a roll.
684 "	Thick Dam, in a roll.



No. 1. Gas Outfit..



This outfit contains a Tripod, 100-gallon Gas Cylinder filled, Wheel Key, nickel plated Yoke Attachment, 7-gallon double end Gas Bag, four feet of silk covered Tubing and our Improved Automatic Inhaler with Chloroform Attachment and Inflatable Rubber Hood.

Price, \$28.50.



Consolidated
Dental Mfg. Co.

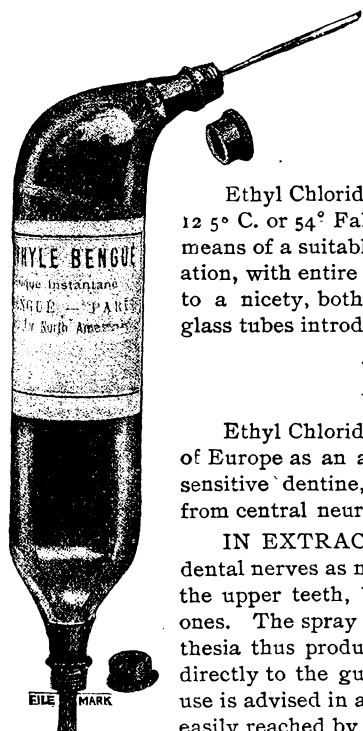
New York, Boston,
Chicago, Atlanta.

“NOXALL”

Is the title of the Local Anæsthetic originally compounded by The Hub Dental Specialty Co., of Boston, and which, by reason of its excellence for dental operations, has become rightly popular wherever introduced. Noxall is not like the general run of preparations manufactured for this class of work, and because of the small proportion of cocaine which it contains no danger attends its use.

Expel all air from a clean Hypodermic Syringe, inject Noxall in accord with the directions which accompany each bottle, and your experience will confirm the manufacturer's claims of superiority.

Price 2 oz. bottle,\$2.00.
 “ 1 oz. “ 1.00.



Ethyl Chloride Bengué.

Ethyl Chloride is a colorless liquid, the boiling point of which is 12 5° C. or 54° Fahr. Projected on the skin in the form of a fine jet by means of a suitable apparatus it speedily causes marked local refrigeration, with entire loss of dermal sensation. The effect can be regulated to a nicety, both with respect to area and intensity, by means of the glass tubes introduced by Dr. Bengué.

In Dental Surgery.

Ethyl Chloride Bengué has been used most successfully in all parts of Europe as an anæsthetic in the extraction of teeth, for obtunding sensitive dentine, extirpation of pulps, and for diagnosing peripheral from central neuralgias, etc., etc.

IN EXTRACTING TEETH, the jet should be directed to the dental nerves as near their origins as possible. In front of the ear for the upper teeth, behind the angle of the inferior maxilla for the lower ones. The spray should be applied for about a minute, but the anæsthesia thus produced is not so complete as when the jet is applied directly to the gums, and as this last method is devoid of danger its use is advised in all cases except those of the last molars, which are not easily reached by the spray.

There is sufficient fluid in each tube to enable 10 to 15 extractions to be made.

In operating on the gums it is advisable, before using the spray, to smear some vaseline over them, after having dried them first, and it is also as well to protect the other healthy teeth with a piece of linen cloth.

Price, Large tube.....\$1.00.
 “ Small “50.

Consolidated Dental M'f'g Co.,

NEW YORK.

BOSTON.

CHICAGO.

ATLANTA.

A Business Proposition.

When a dentist executes a fine piece of bridge work or some particularly neat fillings, it is to his interest to see that his work is preserved. If tartar is allowed to accumulate in the crevices between the teeth or in the crevices around the filling, the teeth will soon begin to decay again, and the filling will loosen.

The only way to prevent tartar from accumulating in the chinks between your patients' teeth is to make them use the Prophylactic tooth brush. No other brush will reach these crevices.

You can't get your patients to do this by recommending the Prophylactic to them. Patients are too apt to think "any other brush will do." You know, and we know that no other brush will do that. No other brush is at one and the same time shaped to fit the mouth and has bristles arranged in the peculiar manner exclusive with the Prophylactic. The bristles in the Prophylactic are graduated in length, and will readily clean out the smallest crevices between the teeth.

The Prophylactic is made with five different textures of bristles—hard, soft, medium, suited to children, suited to misses and youths. It is made in three sizes. You can obtain the Prophylactic in as large or as small a size as you want—with as soft or as stiff bristles as you want.

Our proposition is this. Sell your patients a Prophylactic tooth brush. The cost to you will be about 20 cents a brush. You can get 35 cents for them, which will give you a profit of nearly 100 per cent. It will be a convenience to your patients if you stock up with these brushes.

You can purchase a dozen Prophylactic brushes from the Consolidated Dental Mfg. Co.—to whom we have given the special agency to dentists—for \$2.50. If, when you have received these brushes you are not sure that the Prophylactic is the very best tooth brush made, the Consolidated people will immediately send you your money back without cross-examination.

The other brush, which we know to be the best of its kind, is the Florence Dental Plate Brush. It has a very long tuft of extra stiff and

heavy bristles on the end separated from the body of the brush. The deepest surface of any dental plate can be thoroughly cleaned by the aid of this tuft. An ordinary brush will not do this. No other brush will do this than the Florence Dental Plate Brush.

We make the same proposition to you in reference to this brush as we did in reference to the Prophylactic—\$2.50 a dozen if you send to the Consolidated Dental Mfg. Co. The “money back” guarantee is also attached to any purchase you make of this brush.

You cannot help seeing the advantage of your dental plate patients having these brushes. If they don't have the Florence Dental Plate Brush to clean their dental plates with, the latter will soon become soiled on the inner surface and the gums will become sore. Possibly a berry seed or some extraneous matter will find its way into one of the deepest recesses of the dental plate and will cause prolonged annoyance. Your patient will return to you complaining of this, and you will spend ten dollars worth of time fixing him up and showing where the fault lay. You will see that even if you were to give them to your patients it would be an excellent investment.

If you should not want as many as a dozen of either of these brushes, the Consolidated Dental Mfg. Co. will send you six of the Prophylactic and six of the Florence Dental Plate Brushes for \$2.50.

That is, for \$2.50—the wholesale price—you may have either one dozen of the Prophylactic, one dozen of the Florence Dental Plate Brushes, or a half dozen of each.

Most druggists sell both these brushes. If you recommend your patients to get the Prophylactic, tell them it is the brush “always sold in a yellow box,” and be sure not to buy any other. If you're going to recommend these brushes to your patients, write to us for prescription blanks. We'll furnish you as many as you require without charge.

Florence Manufacturing Co.,

FLORENCE, MASS.

Your Patient's Safety

is dependent upon the absolute cleanliness of the instruments you use. The old-fashioned forceps could not be thoroughly cleansed, and soon became clogged with foul, decaying animal matter. This made them a dangerous source of contagion.

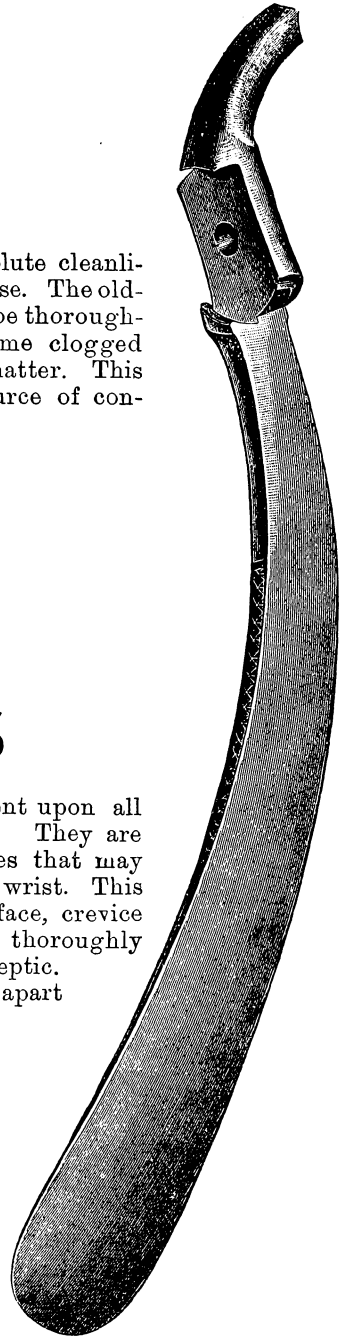
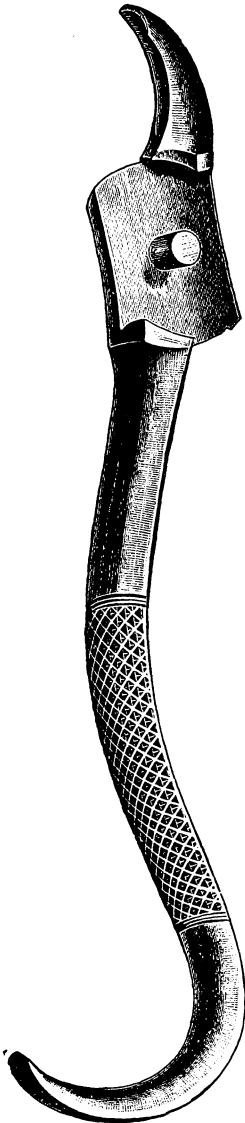
Our Aseptic Forceps

are a marvelous improvement upon all other forceps now in use. They are made in two separate halves that may be detached by a twist of the wrist. This leaves them without a surface, crevice or corner that cannot be thoroughly cleansed and rendered aseptic. The two halves cannot fall apart while in use.

Price per pair, \$2.00.

Money back if they are not
all we represent. Money back
if they are not satisfactory.

Indicate style of beaks, etc.,
from any catalogue.



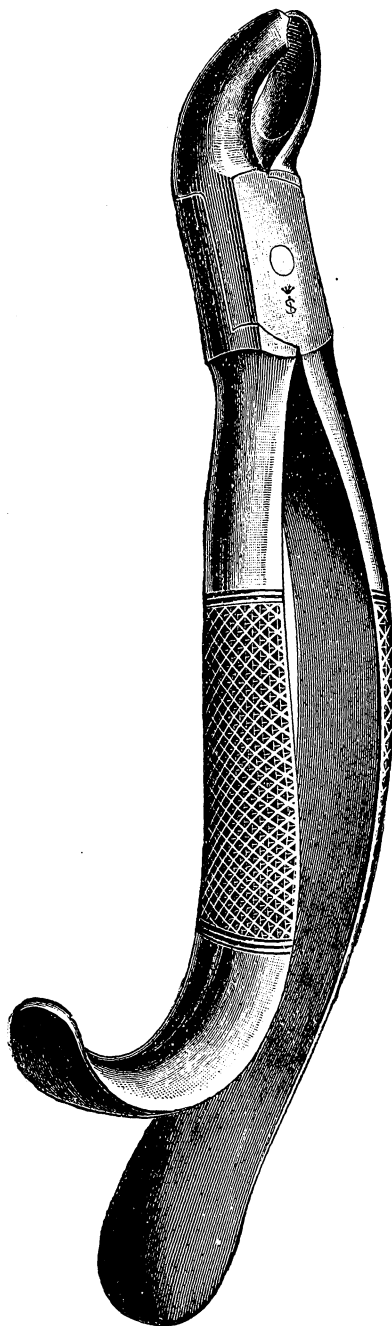
**Sole American
...Agents...**

Consolidated Dental Manufacturing Company.

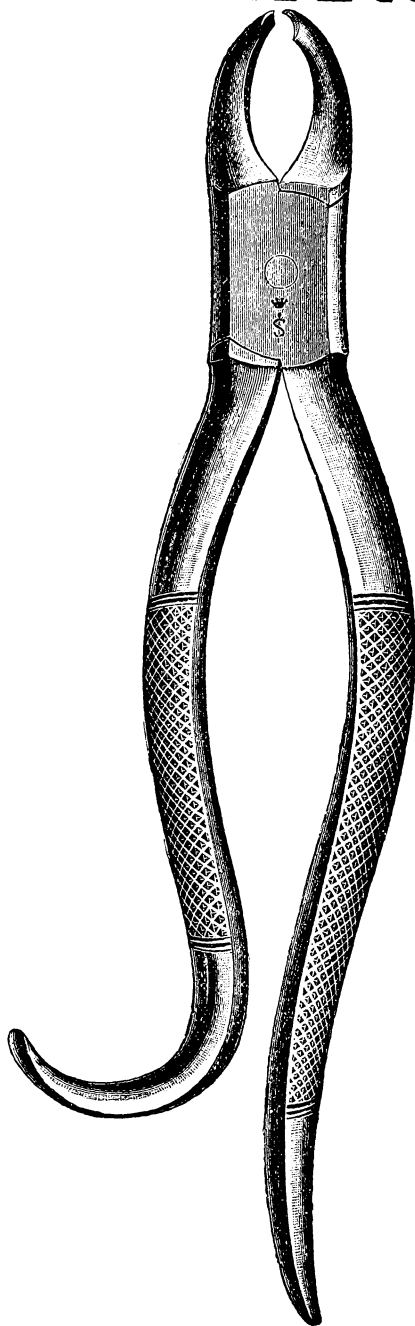
115 WEST 42^D STREET, NEW YORK.

181 Tremont Street, BOSTON, MASS.
78 State Street, CHICAGO, ILL.
35½ Whitehall Street, ATLANTA, GA.

Aseptic Dental Forceps :::



No. 18L. Molar Upper, Left Side.
Designed by Dr. Chapin A. Harris.



Consolidated Dental Mfg. Co.

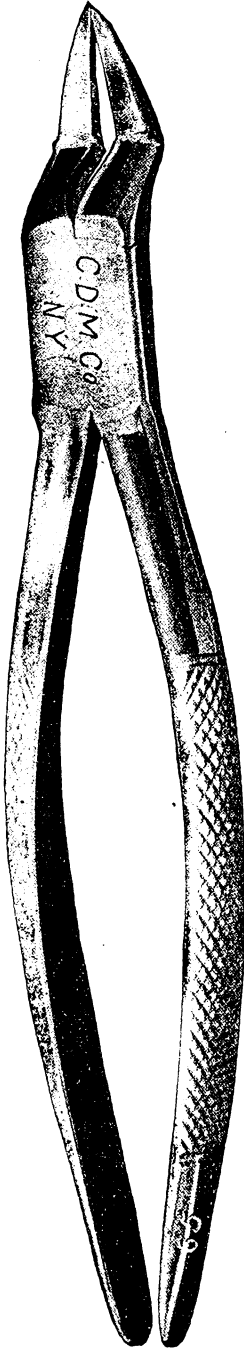
NEW YORK.

BOSTON.

CHICAGO.

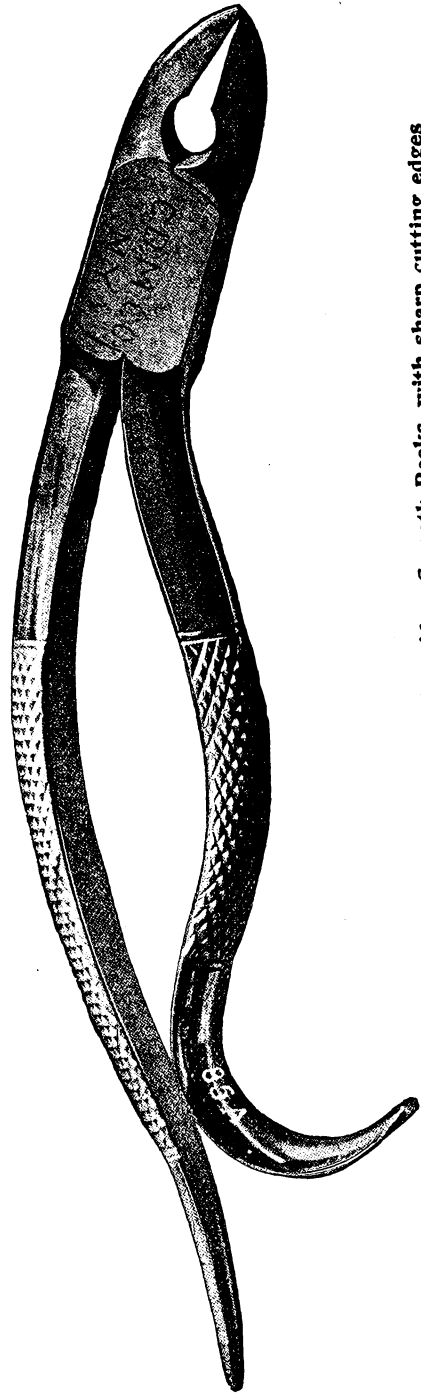
ATLANTA.

ASEPTIC DENTAL FORCEPS.



No. 65. Root, Upper. Bayonet Shape. Slender Beaks. For difficult Roots in upper jaw, and Roots of front teeth in lower jaw.

Designed by Dr. B. F. Arrington.



No. 85A. Alveolar Root. For lower Molars and Bicusps. Smooth Beaks, with sharp cutting edges, and points, to avoid laceration in forcing between the gum and root.

Designed by Dr. J. D. Thomas.

CONSOLIDATED DENTAL MFG. CO.,

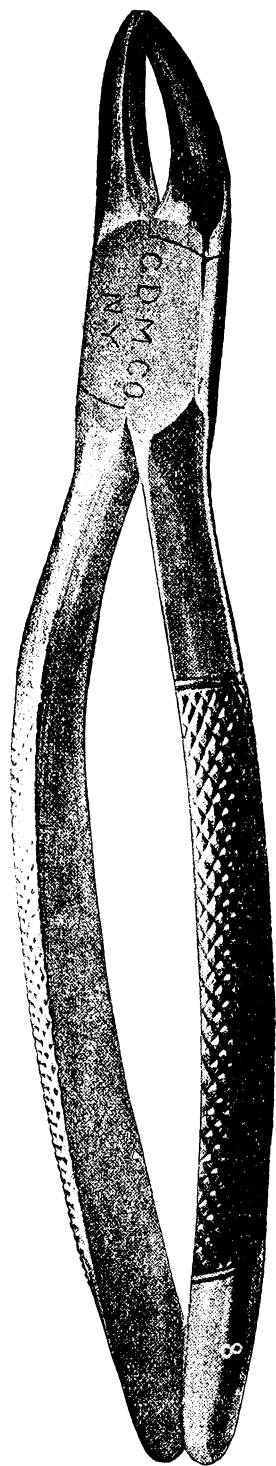
New York.

Boston.

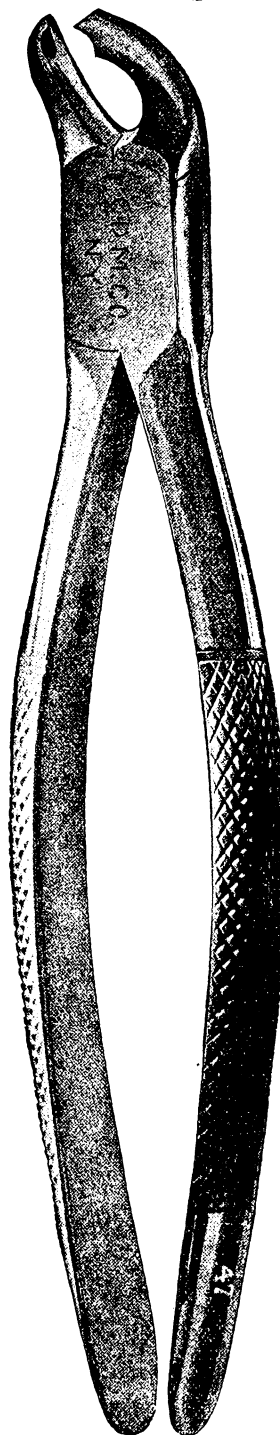
Chicago.

Atlanta.

ASEPTIC DENTAL FORCEPS.



No. 8. Dentes Sapienſiæ, Lower, Either Side.



No. 47. Lower Molar, Either Side, Devised by Dr. Hutchinson.

**Consolidated
Dental
Mfg.
Co.**

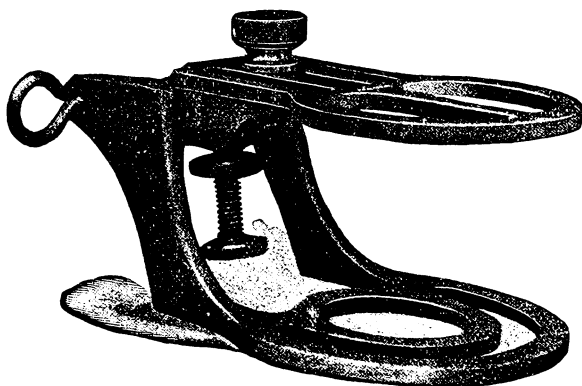
NEW YORK.

BOSTON.

CHICAGO.

ATLANTA.

....PLAIN ARTICULATOR

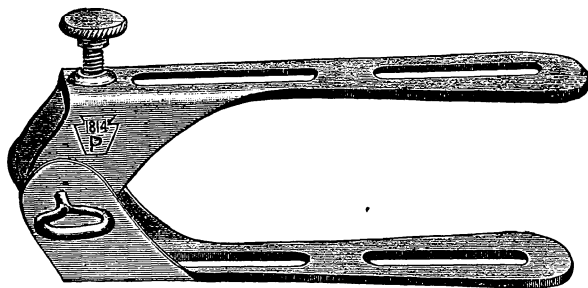


No.
1.

This standard form of Articulator is accepted as the best all-around style for every day use. We have improved the pattern by the addition of the *Shoulder* on upper part of lower casting, which is made flush with upper casting and prevents the wobbling movement common to the old style pattern, especially when it becomes somewhat worn.

Price . . . 90 cents

CROWN ARTICULATOR...



This is a very handy instrument for use in crown and bridge work. The set screw gives it the accuracy desirable in this class of work.

Price . . . 25 cents.

CONSOLIDATED DENTAL M'F'G CO.
NEW YORK. BOSTON CHICAGO. ATLANTA.